



## SEQUENCE LISTING

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<120> CRYSTAL STRUCTURE OF PIM-1 KINASE

<130> 039363/0703

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<150> 60/411,398

<151> 2002-09-16

<160> 173

<170> PatentIn Ver. 3.3

<210> 1

<211> 313

<212> PRT

<213> Homo sapiens

<400> 1

Met Leu Leu Ser Lys Ile Asn Ser Leu Ala His Leu Arg Ala Ala Pro  
1 5 10 15

Cys Asn Asp Leu His Ala Thr Lys Leu Ala Pro Gly Lys Glu Lys Glu  
20 25 30

Pro Leu Glu Ser Gln Tyr Gln Val Gly Pro Leu Leu Gly Ser Gly Gly  
35 40 45

Phe Gly Ser Val Tyr Ser Gly Ile Arg Val Ser Asp Asn Leu Pro Val  
50 55 60

Ala Ile Lys His Val Glu Lys Asp Arg Ile Ser Asp Trp Gly Glu Leu  
65 70 75 80

Pro Asn Gly Thr Arg Val Pro Met Glu Val Val Leu Leu Lys Lys Val  
85 90 95

Ser Ser Gly Phe Ser Gly Val Ile Arg Leu Leu Asp Trp Phe Glu Arg  
100 105 110

Pro Asp Ser Phe Val Leu Ile Leu Glu Arg Pro Glu Pro Val Gln Asp  
115 120 125

Leu Phe Asp Phe Ile Thr Glu Arg Gly Ala Leu Gln Glu Glu Leu Ala  
130 135 140

Arg Ser Phe Phe Trp Gln Val Leu Glu Ala Val Arg His Cys His Asn  
 145 150 155 160  
 Cys Gly Val Leu His Arg Asp Ile Lys Asp Glu Asn Ile Leu Ile Asp  
 165 170 175  
 Leu Asn Arg Gly Glu Leu Lys Leu Ile Asp Phe Gly Ser Gly Ala Leu  
 180 185 190  
 Leu Lys Asp Thr Val Tyr Thr Asp Phe Asp Gly Thr Arg Val Tyr Ser  
 195 200 205  
 Pro Pro Glu Trp Ile Arg Tyr His Arg Tyr His Gly Arg Ser Ala Ala  
 210 215 220  
 Val Trp Ser Leu Gly Ile Leu Leu Tyr Asp Met Val Cys Gly Asp Ile  
 225 230 235 240  
 Pro Phe Glu His Asp Glu Glu Ile Ile Arg Gly Gln Val Phe Phe Arg  
 245 250 255  
 Gln Arg Val Ser Ser Glu Cys Gln His Leu Ile Arg Trp Cys Leu Ala  
 260 265 270  
 Leu Arg Pro Ser Asp Arg Pro Thr Phe Glu Glu Ile Gln Asn His Pro  
 275 280 285  
 Trp Met Gln Asp Val Leu Leu Pro Gln Glu Thr Ala Glu Ile His Leu  
 290 295 300  
 His Ser Leu Ser Pro Gly Pro Ser Lys  
 305 310

<210> 2  
 <211> 313  
 <212> PRT  
 <213> Mus musculus

<400> 2  
 Met Leu Leu Ser Lys Ile Asn Ser Leu Ala His Leu Arg Ala Arg Pro  
 1 5 10 15  
 Cys Asn Asp Leu His Ala Thr Lys Leu Ala Pro Gly Lys Glu Lys Glu  
 20 25 30  
 Pro Leu Glu Ser Gln Tyr Gln Val Gly Pro Leu Leu Gly Ser Gly Gly  
 35 40 45  
 Phe Gly Ser Val Tyr Ser Gly Ile Arg Val Ala Asp Asn Leu Pro Val  
 50 55 60  
 Ala Ile Lys His Val Glu Lys Asp Arg Ile Ser Asp Trp Gly Glu Leu  
 65 70 75 80  
 Pro Asn Gly Thr Arg Val Pro Met Glu Val Val Leu Leu Lys Lys Val  
 85 90 95

Ser Ser Asp Phe Ser Gly Val Ile Arg Leu Leu Asp Trp Phe Glu Arg  
 100 105 110

Pro Asp Ser Phe Val Leu Ile Leu Glu Arg Pro Glu Pro Val Gln Asp  
 115 120 125

Leu Phe Asp Phe Ile Thr Glu Arg Gly Ala Leu Gln Glu Asp Leu Ala  
 130 135 140

Arg Gly Phe Phe Trp Gln Val Leu Glu Ala Val Arg His Cys His Asn  
 145 150 155 160

Cys Gly Val Leu His Arg Asp Ile Lys Asp Glu Asn Ile Leu Ile Asp  
 165 170 175

Leu Ser Arg Gly Glu Ile Lys Leu Ile Asp Phe Gly Ser Gly Ala Leu  
 180 185 190

Leu Lys Asp Thr Val Tyr Thr Asp Phe Asp Gly Thr Arg Val Tyr Ser  
 195 200 205

Pro Pro Glu Trp Ile Arg Tyr His Arg Tyr His Gly Arg Ser Ala Ala  
 210 215 220

Val Trp Ser Leu Gly Ile Leu Leu Tyr Asp Met Val Cys Gly Asp Ile  
 225 230 235 240

Pro Phe Glu His Asp Glu Glu Ile Ile Lys Gly Gln Val Phe Phe Arg  
 245 250 255

Gln Thr Val Ser Ser Glu Cys Gln His Leu Ile Lys Trp Cys Leu Ser  
 260 265 270

Leu Arg Pro Ser Asp Arg Pro Ser Phe Glu Glu Ile Arg Asn His Pro  
 275 280 285

Trp Met Gln Gly Asp Leu Leu Pro Gln Ala Ala Ser Glu Ile His Leu  
 290 295 300

His Ser Leu Ser Pro Gly Ser Ser Lys  
 305 310

<210> 3

<211> 323

<212> PRT

<213> Homo sapiens

<400> 3

Met Leu Thr Lys Pro Leu Gln Gly Pro Pro Ala Pro Pro Gly Thr Pro  
 1 5 10 15

Thr Pro Pro Pro Gly Gly Lys Asp Arg Glu Ala Phe Glu Ala Glu Tyr  
 20 25 30

Arg Leu Gly Pro Leu Leu Gly Lys Gly Gly Phe Gly Thr Val Phe Ala  
 35 40 45

Gly His Arg Leu Thr Asp Arg Leu Gln Val Ala Ile Lys Val Ile Pro  
 50 55 60  
 Arg Asn Arg Val Leu Gly Trp Ser Pro Leu Ser Asp Ser Val Thr Cys  
 65 70 75 80  
 Pro Leu Glu Val Ala Leu Leu Trp Lys Val Gly Ala Gly Gly Gly His  
 85 90 95  
 Pro Gly Val Ile Arg Leu Leu Asp Trp Phe Glu Thr Gln Glu Gly Phe  
 100 105 110  
 Met Leu Val Leu Glu Arg Pro Leu Pro Ala Gln Asp Leu Phe Asp Tyr  
 115 120 125  
 Ile Thr Glu Lys Gly Pro Leu Gly Glu Gly Pro Ser Arg Cys Phe Phe  
 130 135 140  
 Gly Gln Val Val Ala Ala Ile Gln His Cys His Ser Arg Gly Val Val  
 145 150 155 160  
 His Arg Asp Ile Lys Asp Glu Asn Ile Leu Ile Asp Leu Arg Arg Gly  
 165 170 175  
 Cys Ala Lys Leu Ile Asp Phe Gly Ser Gly Ala Leu Leu His Asp Glu  
 180 185 190  
 Pro Tyr Thr Asp Phe Asp Gly Thr Arg Val Tyr Ser Pro Pro Glu Trp  
 195 200 205  
 Ile Ser Arg His Gln Tyr His Ala Leu Pro Ala Thr Val Trp Ser Leu  
 210 215 220  
 Gly Ile Leu Leu Tyr Asp Met Val Cys Gly Asp Ile Pro Phe Glu Arg  
 225 230 235 240  
 Asp Gln Glu Ile Leu Glu Ala Glu Leu His Phe Pro Ala His Val Ser  
 245 250 255  
 Pro Asp Cys Cys Ala Leu Ile Arg Arg Cys Leu Ala Pro Lys Pro Ser  
 260 265 270  
 Ser Arg Pro Ser Leu Glu Glu Ile Leu Leu Asp Pro Trp Met Gln Thr  
 275 280 285  
 Pro Ala Glu Asp Val Thr Pro Gln Pro Leu Gln Arg Arg Pro Cys Pro  
 290 295 300  
 Phe Gly Leu Val Leu Ala Thr Leu Ser Leu Ala Trp Pro Gly Leu Ala  
 305 310 315 320  
 Pro Asn Gly

<210> 4  
 <211> 311  
 <212> PRT  
 <213> Mus musculus

<400> 4  
 Met Leu Thr Lys Pro Leu Gln Gly His Pro Ser Pro Pro Val Thr Pro  
   1                  5                  10                  15  
 Thr Gln Pro Pro Gly Gly Lys Asp Arg Ala Ala Phe Glu Ala Glu Tyr  
           20                  25                  30  
 Arg Leu Gly Pro Leu Leu Gly Lys Gly Gly Phe Gly Thr Val Phe Ala  
           35                  40                  45  
 Gly His Arg Val Thr Asp Arg Arg Gln Val Ala Ile Lys Val Ile Ser  
           50                  55                  60  
 Arg Asn Arg Val Leu Gly Trp Ser Thr Val Ser Asp Ser Val Thr Cys  
           65                  70                  75                  80  
 Pro Leu Glu Val Ala Leu Leu Trp Lys Val Gly Glu Gly Asn Gly His  
                   85                  90                  95  
 Pro Gly Val Ile Arg Leu Leu Asp Trp Phe Glu Thr Pro Glu Gly Phe  
           100                  105                  110  
 Met Leu Val Leu Glu Arg Pro Met Pro Ala Gln Asp Leu Phe Asp Tyr  
           115                  120                  125  
 Ile Thr Glu Lys Gly Pro Leu Gly Glu Ser Cys Ser Arg Ser Phe Phe  
           130                  135                  140  
 Thr Gln Val Val Ala Ala Val Gln His Cys His Ala Arg Gly Val Val  
           145                  150                  155                  160  
 His Arg Asp Ile Lys Asp Glu Asn Ile Leu Ile Asp Leu Cys Arg Gly  
                   165                  170                  175  
 Ser Ile Lys Leu Ile Asp Phe Gly Ser Gly Ala Leu Leu His Asp Glu  
                   180                  185                  190  
 Pro Tyr Thr Asp Phe Asp Gly Thr Arg Val Tyr Ser Pro Pro Glu Trp  
           195                  200                  205  
 Ile Ser Arg His Gln Tyr His Ala Leu Pro Ala Thr Val Trp Ser Leu  
           210                  215                  220  
 Gly Val Leu Leu Tyr Asp Met Val Cys Gly Asp Ile Pro Phe Glu Arg  
           225                  230                  235                  240  
 Asp Gln Glu Ile Leu Glu Ala Glu Leu His Phe Pro Ala His Val Ser  
                   245                  250                  255  
 Pro Asp Cys Cys Ala Leu Ile Arg Arg Cys Leu Ala Pro Lys Pro Cys  
           260                  265                  270

Ser Arg Pro Ser Leu Glu Glu Ile Leu Leu Asp Pro Trp Met Gln Ser  
 275 280 285

Pro Ala Glu Glu Lys Pro Ile Asn Ser Ser Lys Gly Ser Pro Thr Pro  
 290 295 300

Leu Pro Trp Ser Leu Leu Pro  
 305 310

<210> 5

<211> 296

<212> PRT

<213> Homo sapiens

<400> 5

Ala Asp Lys Glu Ser Phe Glu Lys Ala Tyr Gln Val Gly Ala Val Leu  
 1 5 10 15

Gly Ser Gly Gly Phe Gly Thr Val Tyr Ala Gly Ser Arg Ile Ala Asp  
 20 25 30

Gly Leu Pro Val Ala Val Lys His Val Val Lys Glu Arg Val Thr Glu  
 35 40 45

Trp Gly Ser Leu Gly Gly Ala Thr Val Pro Leu Glu Val Val Leu Leu  
 50 55 60

Arg Lys Val Gly Ala Ala Gly Gly Ala Arg Gly Val Ile Arg Leu Leu  
 65 70 75 80

Asp Trp Phe Glu Arg Pro Asp Gly Phe Leu Leu Val Leu Glu Arg Pro  
 85 90 95

Glu Pro Ala Gln Asp Leu Phe Asp Phe Ile Thr Glu Arg Gly Ala Leu  
 100 105 110

Asp Glu Pro Leu Ala Arg Arg Phe Phe Ala Gln Val Leu Ala Ala Val  
 115 120 125

Arg His Cys His Ser Cys Gly Val Val His Arg Asp Ile Lys Asp Glu  
 130 135 140

Asn Leu Leu Val Asp Leu Arg Ser Gly Glu Leu Lys Leu Ile Asp Phe  
 145 150 155 160

Gly Ser Gly Ala Leu Leu Lys Asp Thr Val Tyr Thr Asp Phe Asp Gly  
 165 170 175

Thr Arg Val Tyr Ser Pro Pro Glu Trp Ile Arg Tyr His Arg Tyr His  
 180 185 190

Gly Arg Ser Ala Thr Val Trp Ser Leu Gly Val Leu Leu Tyr Asp Met  
 195 200 205

Val Cys Gly Asp Ile Pro Phe Glu Gln Asp Glu Glu Ile Leu Arg Gly  
 210 215 220

Arg Leu Leu Phe Arg Arg Arg Val Ser Pro Glu Cys Gln Gln Leu Ile  
225 230 235 240

Arg Trp Cys Leu Ser Leu Arg Pro Ser Glu Arg Pro Ser Leu Asp Gln  
245 250 255

Ile Ala Ala His Pro Trp Met Leu Gly Ala Asp Gly Gly Ala Pro Glu  
260 265 270

Ser Cys Asp Leu Arg Leu Cys Thr Leu Asp Pro Asp Asp Val Ala Ser  
275 280 285

Thr Thr Ser Ser Ser Glu Ser Leu  
290 295

<210> 6

<211> 325

<212> PRT

<213> Mus musculus

<400> 6

Met Leu Leu Ser Lys Phe Gly Ser Leu Ala His Leu Cys Gly Pro Gly  
1 5 10 15

Gly Val Asp His Leu Pro Val Lys Ile Leu Gln Pro Ala Lys Ala Asp  
20 25 30

Lys Glu Ser Phe Glu Lys Val Tyr Gln Val Gly Ala Val Leu Gly Ser  
35 40 45

Gly Gly Phe Gly Thr Val Tyr Ala Gly Ser Arg Ile Ala Asp Gly Leu  
50 55 60

Pro Val Ala Val Lys His Val Val Lys Glu Arg Val Thr Glu Trp Gly  
65 70 75 80

Ser Leu Gly Gly Val Ala Val Pro Leu Glu Val Val Leu Leu Arg Lys  
85 90 95

Val Gly Ala Ala Gly Gly Ala Arg Gly Val Ile Arg Leu Leu Asp Trp  
100 105 110

Phe Glu Arg Pro Asp Gly Phe Leu Leu Val Leu Glu Arg Pro Glu Pro  
115 120 125

Ala Gln Asp Leu Phe Asp Phe Ile Thr Glu Arg Gly Ala Leu Asp Glu  
130 135 140

Pro Leu Ala Arg Arg Phe Phe Ala Gln Val Leu Ala Ala Val Arg His  
145 150 155 160

Cys His Asn Cys Gly Val Val His Arg Asp Ile Lys Asp Glu Asn Leu  
165 170 175

Leu Val Asp Leu Arg Ser Gly Glu Leu Lys Leu Ile Asp Phe Gly Ser  
180 185 190

Gly Ala Val Leu Lys Asp Thr Val Tyr Thr Asp Phe Asp Gly Thr Arg  
195 200 205

Val Tyr Ser Pro Pro Glu Trp Ile Arg Tyr His Arg Tyr His Gly Arg  
210 215 220

Ser Ala Thr Val Trp Ser Leu Gly Val Leu Leu Tyr Asp Met Val Cys  
225 230 235 240

Gly Asp Ile Pro Phe Glu Gln Asp Glu Glu Ile Leu Arg Gly Arg Leu  
245 250 255

Phe Phe Arg Arg Arg Val Ser Pro Glu Cys Gln Gln Leu Ile Glu Trp  
260 265 270

Cys Leu Ser Leu Arg Pro Ser Glu Arg Pro Ser Leu Asp Lys Leu Cys  
275 280 285

His Pro Trp Met Leu Gly Thr Glu Gly Ser Val Pro Glu Asn Cys Asp  
290 295 300

Leu Arg Leu Cys Ala Leu Asp Thr Asp Asp Gly Ala Ser Thr Thr Ser  
305 310 315 320

Ser Ser Glu Ser Leu  
325

<210> 7

<211> 323

<212> PRT

<213> Coturnix coturnix

<400> 7

Met Leu Leu Ser Lys Phe Gly Ser Leu Ala His Ile Cys Ser Pro Ala  
1 5 10 15

Ser Met Asp His Leu Pro Val Lys Ile Leu Pro Pro Val Lys Val Glu  
20 25 30

Lys Glu Pro Phe Asp Lys Val Tyr Gln Val Gly Ser Val Leu Gly Ser  
35 40 45

Gly Gly Phe Gly Thr Val Tyr Ala Gly Ser Arg Thr Ala Asp Gly Leu  
50 55 60

Pro Val Ala Val Lys His Val Val Lys Glu Arg Val Thr Glu Trp Gly  
65 70 75 80

Thr Ile Gly Gly Val Met Val Pro Leu Glu Ile Val Leu Leu Lys Lys  
85 90 95

Val Gly Ser Gly Phe Arg Gly Val Ile Lys Leu Leu Asp Trp Tyr Glu  
100 105 110

Arg Pro Asp Gly Phe Leu Ile Val Met Glu Arg Pro Glu Leu Val Lys  
115 120 125



Asp Leu Phe Asp Phe Ile Thr Glu Lys Gly Ala Leu Asp Glu Asp Thr  
130 135 140

Ala Arg Gly Phe Phe Arg Gln Val Leu Glu Ala Val Arg His Cys Tyr  
145 150 155 160

Gly Cys Gly Val Val His Arg Asp Ile Lys Asp Glu Asn Leu Leu Val  
165 170 175

Asp Leu Arg Thr Gly Glu Leu Lys Leu Ile Asp Phe Gly Ser Gly Ala  
180 185 190

Leu Leu Lys Asp Thr Val Tyr Thr Asp Phe Asp Gly Thr Arg Val Tyr  
195 200 205

Ser Pro Pro Glu Trp Ile Arg Tyr His Arg Tyr His Gly Arg Ser Ala  
210 215 220

Thr Val Trp Ser Leu Gly Val Leu Leu Tyr Asp Met Val Cys Gly Asp  
225 230 235 240

Ile Pro Phe Glu Gln Asp Glu Glu Ile Leu Arg Gly Arg Leu Tyr Phe  
245 250 255

Arg Arg Arg Ile Ser Pro Glu Cys Gln Gln Leu Ile Lys Trp Cys Leu  
260 265 270

Ser Leu Arg Pro Ser Asp Arg Pro Thr Leu Glu Gln Ile Phe Asp His  
275 280 285

Gln Trp Met His Lys Ser Glu Val Val Lys Ser Glu Asp Cys Asp Ile  
290 295 300

Arg Leu Arg Thr Leu Asp Thr Asp Val Ser Ser Thr Ser Ser Ser Asn  
305 310 315 320

Glu Ser Leu

<210> 8

<211> 323

<212> PRT

<213> *Xenopus laevis*

<400> 8

Met Leu Leu Ser Lys Phe Gly Ser Leu Ala His Ile Cys Asn Pro Ser  
1 5 10 15

Asn Met Glu His Leu Pro Val Lys Ile Leu Gln Pro Val Lys Val Asp  
20 25 30

Lys Glu Pro Phe Glu Lys Val Tyr Gln Val Gly Ser Val Val Ala Ser  
35 40 45

Gly Gly Phe Gly Thr Val Tyr Ser Asp Ser Arg Ile Ala Asp Gly Gln  
50 55 60

Pro	Val	Ala	Val	Lys	His	Val	Ala	Lys	Glu	Arg	Val	Thr	Glu	Trp	Gly	65	70	75	80
Thr	Leu	Asn	Gly	Val	Met	Val	Pro	Leu	Glu	Ile	Val	Leu	Leu	Lys	Lys	85	90	95	
Val	Pro	Thr	Ala	Phe	Arg	Gly	Val	Ile	Asn	Leu	Leu	Asp	Trp	Tyr	Glu	100	105	110	
Arg	Pro	Asp	Ala	Phe	Leu	Ile	Val	Met	Glu	Arg	Pro	Glu	Pro	Val	Lys	115	120	125	
Asp	Leu	Phe	Asp	Tyr	Ile	Thr	Glu	Lys	Gly	Pro	Leu	Asp	Glu	Asp	Thr	130	135	140	
Ala	Arg	Gly	Phe	Phe	Arg	Gln	Val	Leu	Glu	Ala	Val	Arg	His	Cys	Tyr	145	150	155	160
Asn	Cys	Gly	Val	Val	His	Arg	Asp	Ile	Lys	Asp	Glu	Asn	Leu	Leu	Val	165	170	175	
Asp	Thr	Arg	Asn	Gly	Glu	Leu	Lys	Leu	Ile	Asp	Phe	Gly	Ser	Gly	Ala	180	185	190	
Leu	Leu	Lys	Asp	Thr	Val	Tyr	Thr	Asp	Phe	Asp	Gly	Thr	Arg	Val	Tyr	195	200	205	
Ser	Pro	Pro	Glu	Trp	Val	Arg	Tyr	His	Arg	Tyr	His	Gly	Arg	Ser	Ala	210	215	220	
Thr	Val	Trp	Ser	Leu	Gly	Val	Leu	Leu	Tyr	Asp	Met	Val	Tyr	Gly	Asp	225	230	235	240
Ile	Pro	Phe	Glu	Gln	Asp	Glu	Glu	Ile	Val	Arg	Val	Arg	Leu	Cys	Phe	245	250	255	
Arg	Arg	Arg	Ile	Ser	Thr	Glu	Cys	Gln	Gln	Leu	Ile	Lys	Trp	Cys	Leu	260	265	270	
Ser	Leu	Arg	Pro	Ser	Asp	Arg	Pro	Thr	Leu	Glu	Gln	Ile	Phe	Asp	His	275	280	285	
Pro	Trp	Met	Cys	Lys	Cys	Asp	Leu	Val	Lys	Ser	Glu	Asp	Cys	Asp	Leu	290	295	300	
Arg	Leu	Arg	Thr	Ile	Asp	Asn	Asp	Ser	Ser	Ser	Thr	Ser	Ser	Ser	Asn	305	310	315	320
Glu Ser Leu																			

&lt;210&gt; 9

&lt;211&gt; 310

&lt;212&gt; PRT

&lt;213&gt; Danio rerio

&lt;400&gt; 9

Met Leu Asp Lys Arg Ile Val Asp Val Arg Leu Asp Gln Leu Glu Ile  
 1 5 10 15  
 Leu Lys Ala Lys Asn Gly Lys Glu His Phe Glu Lys Gln Tyr Thr Met  
 20 25 30  
 Gly Asn Leu Leu Gly Ser Gly Gly Phe Gly Ser Val Tyr Ser Gly His  
 35 40 45  
 Arg Ile Ser Asp Gly Gln Lys Val Ala Ile Lys Gln Ile Ser Arg Asp  
 50 55 60  
 Arg Ile Gln Gln Trp Ser Lys Met Pro Gly Glu Val Asn Pro Val Pro  
 65 70 75 80  
 Asn Glu Ile Ala Leu Leu Gln Ser Leu Gly Gly Gly Ser Gly Ser Val  
 85 90 95  
 Pro Gly His Arg Gly Ile Ile Arg Met Leu Asp Trp Phe Glu Ile Pro  
 100 105 110  
 Gly Gln Glu Tyr Leu Ile Val Phe Glu Lys Pro Gln His Cys Gln Asp  
 115 120 125  
 Leu Phe Asp Phe Ile Thr Glu Arg Gly Arg Leu Asp Glu Ser Leu Ala  
 130 135 140  
 Arg Arg Phe Leu Lys Gln Val Ile Glu Ala Val Gln Phe Cys His Ser  
 145 150 155 160  
 Lys Gly Ile Val His Arg Asp Ile Lys Asp Glu Asn Ile Leu Val Asp  
 165 170 175  
 Thr Arg Thr Gly Asp Ile Lys Val Ile Asp Phe Gly Ser Gly Ala Thr  
 180 185 190  
 Leu Lys Asp Ser Met Tyr Thr Asp Phe Glu Gly Thr Arg Val Tyr Ser  
 195 200 205  
 Pro Pro Glu Trp Ile Leu Tyr His Lys Tyr His Ala Leu Pro Leu Thr  
 210 215 220  
 Val Trp Ser Leu Gly Val Leu Leu Tyr Asp Met Val Cys Gly Asp Ile  
 225 230 235 240  
 Pro Phe Glu Gln Asp Thr Asp Ile Val Lys Ala Lys Pro Ser Phe Asn  
 245 250 255  
 Lys Arg Ile Ser Asn Asp Cys Arg Ser Leu Ile Cys Ser Cys Leu Ser  
 260 265 270  
 Tyr Asn Pro Gly Asp Arg Pro Ser Leu Glu Gln Ile Leu Gln His Pro  
 275 280 285  
 Trp Met Met Glu Ser Ser Val Asp Asn Gly Asp Leu Gln Glu Glu Ser  
 290 295 300

Lys Ile Lys Pro Ser Leu  
305 310

<210> 10  
<211> 322  
<212> PRT  
<213> Caenorhabditis elegans

<400> 10  
Met Lys Lys Leu Ala Ser Leu Gln Phe Phe Asn Leu Lys Leu Leu Leu  
1 5 10 15  
Asn Gly Glu Ser Ser Arg Gly Phe Ser Lys Phe Lys Lys Asn Tyr Lys  
20 25 30  
Leu Lys Ala Glu Leu Gly Arg Gly Gly Phe Gly Val Val Tyr Arg Ala  
35 40 45  
Val Arg Thr Cys Asp Asn Ala Leu Val Ala Val Lys Phe Ile Glu Arg  
50 55 60  
Ser Asn Val Lys Glu Trp Ala Arg Ile Asn Gly Glu Gln Val Pro Met  
65 70 75 80  
Glu Ile Cys Met Leu Ala Lys Cys Ser Lys Val Arg Gly Val Ile Arg  
85 90 95  
Leu Leu Asp Trp Tyr Ser Ile Pro Glu Gly Phe Leu Ile Val Met Glu  
100 105 110  
Arg Pro Tyr Pro Cys Ile Asp Met Phe Asp Phe Ile Lys Gly Gln Gly  
115 120 125  
Lys Ile Ser Glu Asp Met Ala Arg Phe Leu Phe Arg Gln Ile Ala Val  
130 135 140  
Thr Val His Glu Cys Val Gln Asn Arg Val Leu His Arg Asp Leu Lys  
145 150 155 160  
Asp Glu Asn Ile Val Ile Asp Leu Val Thr Gly Ser Thr Lys Leu Ile  
165 170 175  
Asp Phe Gly Ala Ala Thr Val Leu Arg Arg Ser Gln Tyr Ser Asp Phe  
180 185 190  
Gln Gly Thr Arg Leu Tyr Cys Pro Pro Glu Trp Phe Leu His Ser Leu  
195 200 205  
Tyr Leu Gly Arg Glu Ala Ala Val Trp Ser Leu Gly Val Leu Leu Tyr  
210 215 220  
Asn Ser Leu Asn Gly Arg Leu Pro Phe Arg Asn Glu Lys Asp Ile Cys  
225 230 235 240  
Thr Ala His Leu Leu Gly Pro Leu Pro Phe Phe Val Pro Val Ser Ala  
245 250 255

Glu Val Lys Asp Leu Ile Ser Lys Cys Leu Thr Phe Asp Pro Phe Gln  
 260 265 270

Arg Cys Ser Leu Glu Ala Ile Leu Asn His Pro Trp Val Lys Gln Gln  
 275 280 285

Thr Leu Ser Trp Asp Ala Leu Thr Lys Asn Lys Val Gln Lys Lys Thr  
 290 295 300

Ser Glu Ser Ser Asp Asp His His Ser Glu Thr Leu Gly Asp His Ser  
 305 310 315 320

Glu Thr

<210> 11

<211> 323

<212> PRT

<213> Caenorhabditis elegans

<400> 11

Met Ile Lys Arg Lys Leu Gln Asp Leu Ala Val Cys Cys Ser Tyr Gln  
 1 5 10 15

Val Asp Phe Leu His Glu Lys Lys His Ser Val Lys Glu Phe Lys Arg  
 20 25 30

Lys Tyr Glu Val Leu Asp Glu Ile Gly Arg Gly Gly Phe Gly Ile Val  
 35 40 45

Tyr Glu Ala Thr Thr Arg Gln Asp Gly Gln Gln Pro Val Ala Val Lys  
 50 55 60

Phe Val Gln His Lys His Val Arg Ser Trp Thr Met Thr Cys Arg Gln  
 65 70 75 80

Leu Ile Pro Ser Glu Val Cys His Leu Glu Thr Cys Glu Asp Ile Pro  
 85 90 95

Gly Val Ile Lys Ile Leu Asp Trp Phe Ala Asn Ser Lys Gly Phe Leu  
 100 105 110

Ile Val Met Glu Arg Pro Ala Asn Cys Met Asp Leu Phe Asp Met Val  
 115 120 125

Ser Val His Gly Pro Leu Asn Glu Asp Met Gly Lys Phe Ile Phe Lys  
 130 135 140

Gln Val Ile Thr Thr Val Phe Asn Met Tyr Ser Lys His Gly Leu Leu  
 145 150 155 160

His Arg Asp Ile Lys Asp Glu Asn Leu Ile Val Asn Met Asn Thr Gly  
 165 170 175

Glu Val Lys Leu Val Asp Phe Gly Ala Thr Ala Tyr Ala Glu Lys Ala  
 180 185 190

Thr Lys Lys Glu Phe Gln Gly Thr Arg Ser Tyr Cys Pro Pro Glu Trp  
 195 200 205  
 Phe Arg Asp Gln Leu Tyr Leu Pro Leu Glu Ala Thr Ser Trp Ser Leu  
 210 215 220  
 Gly Val Leu Leu Phe Ile Leu Leu Thr Gly Lys Leu Pro Phe Arg Asn  
 225 230 235 240  
 Glu Ile Gln Ile Cys Leu Gly Asn Val Lys Phe Pro Pro Asp Leu Ser  
 245 250 255  
 Lys Glu Val Cys Gln Leu Val Lys Ser Cys Leu Thr Thr Ser Thr Ser  
 260 265 270  
 Ala Arg Ala Ser Leu Ala Gln Ile Ala Ala His Pro Trp Met Glu Thr  
 275 280 285  
 Asp Lys Pro Phe Phe Gly Gly Asp Leu Thr Phe Glu Glu Ala Leu Met  
 290 295 300  
 Glu Ile Lys Asn Pro Pro Val Val Ile Glu Asp Lys Glu Ala Glu Glu  
 305 310 315 320  
 Glu Asp Asn

<210> 12  
 <211> 298  
 <212> PRT  
 <213> *Oryctolagus cuniculus*

<400> 12  
 Thr Arg Asp Ala Ala Leu Pro Gly Ser His Ser Thr His Gly Phe Tyr  
 1 5 10 15  
 Glu Asn Tyr Glu Pro Lys Glu Ile Leu Gly Arg Gly Val Ser Ser Val  
 20 25 30  
 Val Arg Arg Cys Ile His Lys Pro Thr Cys Lys Glu Tyr Ala Val Lys  
 35 40 45  
 Ile Ile Asp Val Thr Gly Gly Gly Ser Phe Ser Ala Glu Glu Val Gln  
 50 55 60  
 Glu Leu Arg Glu Ala Thr Leu Lys Glu Val Asp Ile Leu Arg Lys Val  
 65 70 75 80  
 Ser Gly His Pro Asn Ile Ile Gln Leu Lys Asp Thr Tyr Glu Thr Asn  
 85 90 95  
 Thr Phe Phe Phe Leu Val Phe Asp Leu Met Lys Lys Gly Glu Leu Phe  
 100 105 110  
 Asp Tyr Leu Thr Glu Lys Val Thr Leu Ser Glu Lys Glu Thr Arg Lys  
 115 120 125

Ile Met Arg Ala Leu Leu Glu Val Ile Cys Ala Leu His Lys Leu Asn  
130 135 140

Ile Val His Arg Asp Leu Lys Pro Glu Asn Ile Leu Leu Asp Asp Asp  
145 150 155 160

Met Asn Ile Lys Leu Thr Asp Phe Gly Phe Ser Cys Gln Leu Asp Pro  
165 170 175

Gly Glu Lys Leu Arg Glu Val Cys Gly Thr Pro Ser Tyr Leu Ala Pro  
180 185 190

Glu Ile Ile Glu Cys Ser Met Asn Asp Asn His Pro Gly Tyr Gly Lys  
195 200 205

Glu Val Asp Met Trp Ser Thr Gly Val Ile Met Tyr Thr Leu Leu Ala  
210 215 220

Gly Ser Pro Pro Phe Trp His Arg Lys Gln Met Leu Met Leu Arg Met  
225 230 235 240

Ile Met Ser Gly Asn Tyr Gln Phe Gly Ser Pro Glu Trp Asp Asp Tyr  
245 250 255

Ser Asp Thr Val Lys Asp Leu Val Ser Arg Phe Leu Val Val Gln Pro  
260 265 270

Gln Lys Arg Tyr Thr Ala Glu Glu Ala Leu Ala His Pro Phe Phe Gln  
275 280 285

Gln Tyr Val Val Glu Glu Val Arg His Phe  
290 295

<210> 13

<211> 332

<212> PRT

<213> Homo sapiens

<400> 13

Met Pro Gly Ala Val Glu Gly Pro Arg Trp Lys Gln Ala Glu Asp Ile  
1 5 10 15

Arg Asp Ile Tyr Asp Phe Arg Asp Val Leu Gly Thr Gly Ala Phe Ser  
20 25 30

Glu Val Ile Leu Ala Glu Asp Lys Arg Thr Gln Lys Leu Val Ala Ile  
35 40 45

Lys Cys Ile Ala Lys Lys Ala Leu Glu Gly Lys Glu Gly Ser Met Glu  
50 55 60

Asn Glu Ile Ala Val Leu His Lys Ile Lys His Pro Asn Ile Val Ala  
65 70 75 80

Leu Asp Asp Ile Tyr Glu Ser Gly Gly His Leu Tyr Leu Ile Met Gln  
85 90 95

Leu Val Ser Gly Gly Glu Leu Phe Asp Arg Ile Val Glu Lys Gly Phe  
 100 105 110  
 Tyr Thr Glu Arg Asp Ala Ser Arg Leu Ile Phe Gln Val Leu Asp Ala  
 115 120 125  
 Val Lys Tyr Leu His Asp Leu Gly Ile Val His Arg Asp Leu Lys Pro  
 130 135 140  
 Glu Asn Leu Leu Tyr Tyr Ser Leu Asp Glu Asp Ser Lys Ile Met Ile  
 145 150 155 160  
 Ser Asp Phe Gly Leu Ser Lys Met Glu Asp Pro Gly Ser Val Leu Ser  
 165 170 175  
 Thr Ala Cys Gly Thr Pro Gly Tyr Val Ala Pro Glu Val Leu Ala Gln  
 180 185 190  
 Lys Pro Tyr Ser Lys Ala Val Asp Cys Trp Ser Ile Gly Val Ile Ala  
 195 200 205  
 Tyr Ile Leu Leu Cys Gly Tyr Pro Pro Phe Tyr Asp Glu Asn Asp Ala  
 210 215 220  
 Lys Leu Phe Glu Gln Ile Leu Lys Ala Glu Tyr Glu Phe Asp Ser Pro  
 225 230 235 240  
 Tyr Trp Asp Asp Ile Ser Asp Ser Ala Lys Asp Phe Ile Arg His Leu  
 245 250 255  
 Met Glu Lys Asp Pro Glu Lys Arg Phe Thr Cys Glu Gln Ala Leu Gln  
 260 265 270  
 His Pro Trp Ile Ala Gly Asp Thr Ala Leu Asp Lys Asn Ile His Gln  
 275 280 285  
 Ser Val Ser Glu Gln Ile Lys Lys Asn Phe Ala Lys Ser Lys Trp Lys  
 290 295 300  
 Gln Ala Phe Asn Ala Thr Ala Val Val Arg His Met Arg Lys Leu Gln  
 305 310 315 320  
 Leu Gly His Gln Pro Gly Gly Thr Gly Thr Asp Ser  
 325 330  
  
 <210> 14  
 <211> 298  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 14  
 Met Glu Asn Phe Gln Lys Val Glu Lys Ile Gly Glu Gly Thr Tyr Gly  
 1 5 10 15  
 Val Val Tyr Lys Ala Arg Asn Lys Leu Thr Gly Glu Val Val Ala Leu  
 20 25 30



Lys Lys Ile Arg Leu Asp Thr Glu Thr Glu Gly Val Pro Ser Thr Ala  
           35                          40                          45  
 Ile Arg Glu Ile Ser Leu Leu Lys Glu Leu Asn His Pro Asn Ile Val  
           50                          55                          60  
 Lys Leu Leu Asp Val Ile His Thr Glu Asn Lys Leu Tyr Leu Val Phe  
           65                          70                          75                          80  
 Glu Phe Leu His Gln Asp Leu Lys Lys Phe Met Asp Ala Ser Ala Leu  
                           85                          90                          95  
 Thr Gly Ile Pro Leu Pro Leu Ile Lys Ser Tyr Leu Phe Gln Leu Leu  
                           100                          105                          110  
 Gln Gly Leu Ala Phe Cys His Ser His Arg Val Leu His Arg Asp Leu  
           115                          120                          125  
 Lys Pro Gln Asn Leu Leu Ile Asn Thr Glu Gly Ala Ile Lys Leu Ala  
           130                          135                          140  
 Asp Phe Gly Leu Ala Arg Ala Phe Gly Val Pro Val Arg Thr Tyr Thr  
           145                          150                          155                          160  
 His Glu Val Val Thr Leu Trp Tyr Arg Ala Pro Glu Ile Leu Leu Gly  
                           165                          170                          175  
 Cys Lys Tyr Tyr Ser Thr Ala Val Asp Ile Trp Ser Leu Gly Cys Ile  
                           180                          185                          190  
 Phe Ala Glu Met Val Thr Arg Arg Ala Leu Phe Pro Gly Asp Ser Glu  
           195                          200                          205  
 Ile Asp Gln Leu Phe Arg Ile Phe Arg Thr Leu Gly Thr Pro Asp Glu  
           210                          215                          220  
 Val Val Trp Pro Gly Val Thr Ser Met Pro Asp Tyr Lys Pro Ser Phe  
           225                          230                          235                          240  
 Pro Lys Trp Ala Arg Gln Asp Phe Ser Lys Val Val Pro Pro Leu Asp  
                           245                          250                          255  
 Glu Asp Gly Arg Ser Leu Leu Ser Gln Met Leu His Tyr Asp Pro Asn  
           260                          265                          270  
 Lys Arg Ile Ser Ala Lys Ala Ala Leu Ala His Pro Phe Phe Gln Asp  
           275                          280                          285  
 Val Thr Lys Pro Val Pro His Leu Arg Leu  
           290                          295

&lt;210&gt; 15

&lt;211&gt; 326

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 15

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Met Glu Lys Asp Gly Leu Cys Arg Ala Asp Gln Gln Tyr Glu Cys Val
 1           5           10           15

Ala Glu Ile Gly Glu Gly Ala Tyr Gly Lys Val Phe Lys Ala Arg Asp
          20           25           30

Leu Lys Asn Gly Gly Arg Phe Val Ala Leu Lys Arg Val Arg Val Gln
          35           40           45

Thr Gly Glu Glu Gly Met Pro Leu Ser Thr Ile Arg Glu Val Ala Val
          50           55           60

Leu Arg His Leu Glu Thr Phe Glu His Pro Asn Val Val Arg Leu Phe
          65           70           75           80

Asp Val Cys Thr Val Ser Arg Thr Asp Arg Glu Thr Lys Leu Thr Leu
          85           90           95

Val Phe Glu His Val Asp Gln Asp Leu Thr Thr Tyr Leu Asp Lys Val
          100           105           110

Pro Glu Pro Gly Val Pro Thr Glu Thr Ile Lys Asp Met Met Phe Gln
          115           120           125

Leu Leu Arg Gly Leu Asp Phe Leu His Ser His Arg Val Val His Arg
          130           135           140

Asp Leu Lys Pro Gln Asn Ile Leu Val Thr Ser Ser Gly Gln Ile Lys
          145           150           155           160

Leu Ala Asp Phe Gly Leu Ala Arg Ile Tyr Ser Phe Gln Met Ala Leu
          165           170           175

Thr Ser Val Val Val Thr Leu Trp Tyr Arg Ala Pro Glu Val Leu Leu
          180           185           190

Gln Ser Ser Tyr Ala Thr Pro Val Asp Leu Trp Ser Val Gly Cys Ile
          195           200           205

Phe Ala Glu Met Phe Arg Arg Lys Pro Leu Phe Arg Gly Ser Ser Asp
          210           215           220

Val Asp Gln Leu Gly Lys Ile Leu Asp Val Ile Gly Leu Pro Gly Glu
          225           230           235           240

Glu Asp Trp Pro Arg Asp Val Ala Leu Pro Arg Gln Ala Phe His Ser
          245           250           255

Lys Ser Ala Gln Pro Ile Glu Lys Phe Val Thr Asp Ile Asp Glu Leu
          260           265           270

Gly Lys Asp Leu Leu Leu Lys Cys Leu Thr Phe Asn Pro Ala Lys Arg
          275           280           285

Ile Ser Ala Tyr Ser Ala Leu Ser His Pro Tyr Phe Gln Asp Leu Glu
          290           295           300

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Arg Cys Lys Glu Asn Leu Asp Ser His Leu Pro Pro Ser Gln Asn Thr  
 305 310 315 320

Ser Glu Leu Asn Thr Ala  
 325

<210> 16

<211> 367

<212> PRT

<213> Homo sapiens

<400> 16

Met Ser Ser Pro Pro Ala Arg Ser Gly Phe Tyr Arg Gln Glu Val  
 1 5 10 15

Thr Lys Thr Ala Trp Glu Val Arg Ala Val Tyr Arg Asp Leu Gln Pro  
 20 25 30

Val Gly Ser Gly Ala Tyr Gly Ala Val Cys Ser Ala Val Asp Gly Arg  
 35 40 45

Thr Gly Ala Lys Val Ala Ile Lys Lys Leu Tyr Arg Pro Phe Gln Ser  
 50 55 60

Glu Leu Phe Ala Lys Arg Ala Tyr Arg Glu Leu Arg Leu Leu Lys His  
 65 70 75 80

Met Arg His Glu Asn Val Ile Gly Leu Leu Asp Val Phe Thr Pro Asp  
 85 90 95

Glu Thr Leu Asp Asp Phe Thr Asp Phe Tyr Leu Val Met Pro Phe Met  
 100 105 110

Gly Thr Asp Leu Gly Lys Leu Met Lys His Glu Lys Leu Gly Glu Asp  
 115 120 125

Arg Ile Gln Phe Leu Val Tyr Gln Met Leu Lys Gly Leu Arg Tyr Ile  
 130 135 140

His Ala Ala Gly Ile Ile His Arg Asp Leu Lys Pro Gly Asn Leu Ala  
 145 150 155 160

Val Asn Glu Asp Cys Glu Leu Lys Ile Leu Asp Phe Gly Leu Ala Arg  
 165 170 175

Gln Ala Asp Ser Glu Met Thr Gly Tyr Val Val Thr Arg Trp Tyr Arg  
 180 185 190

Ala Pro Glu Val Ile Leu Asn Trp Met Arg Tyr Thr Gln Thr Val Asp  
 195 200 205

Ile Trp Ser Val Gly Cys Ile Met Ala Glu Met Ile Thr Gly Lys Thr  
 210 215 220

Leu Phe Lys Gly Ser Asp His Leu Asp Gln Leu Lys Glu Ile Met Lys  
 225 230 235 240

Val Thr Gly Thr Pro Pro Ala Glu Phe Val Gln Arg Leu Gln Ser Asp  
245 250 255

Glu Ala Lys Asn Asn Met Lys Gly Leu Pro Glu Leu Glu Lys Lys Asp  
260 265 270

Phe Ala Ser Ile Leu Thr Asn Ala Ser Pro Leu Ala Val Asn Leu Leu  
275 280 285

Glu Lys Met Leu Val Leu Asp Ala Glu Gln Arg Val Thr Ala Gly Glu  
290 295 300

Ala Leu Ala His Pro Tyr Phe Glu Ser Leu His Asp Thr Glu Asp Glu  
305 310 315 320

Pro Gln Val Gln Lys Tyr Asp Asp Ser Phe Asp Asp Val Asp Arg Thr  
325 330 335

Leu Asp Glu Trp Lys Arg Val Thr Tyr Lys Glu Val Leu Ser Phe Lys  
340 345 350

Pro Pro Arg Gln Leu Gly Ala Arg Val Ser Lys Glu Thr Pro Leu  
355 360 365

<210> 17  
<211> 359  
<212> PRT  
<213> Homo sapiens

<400> 17  
Ser Gln Glu Arg Pro Thr Phe Tyr Arg Gln Glu Leu Asn Lys Thr Ile  
1 5 10 15

Trp Glu Val Pro Glu Arg Tyr Gln Asn Leu Ser Pro Val Gly Ser Gly  
20 25 30

Ala Tyr Gly Ser Val Cys Ala Ala Phe Asp Thr Lys Thr Gly Leu Arg  
35 40 45

Val Ala Val Lys Lys Leu Ser Arg Pro Phe Gln Ser Ile Ile His Ala  
50 55 60

Lys Arg Thr Tyr Arg Glu Leu Arg Leu Leu Lys His Met Lys His Glu  
65 70 75 80

Asn Val Ile Gly Leu Leu Asp Val Phe Thr Pro Ala Arg Ser Leu Glu  
85 90 95

Glu Phe Asn Asp Val Tyr Leu Val Thr His Leu Met Gly Ala Asp Leu  
100 105 110

Asn Asn Ile Val Lys Cys Gln Lys Leu Thr Asp Asp His Val Gln Phe  
115 120 125

Leu Ile Tyr Gln Ile Leu Arg Gly Leu Lys Tyr Ile His Ser Ala Asp  
130 135 140

Ile Ile His Arg Asp Leu Lys Pro Ser Asn Leu Ala Val Asn Glu Asp  
145 150 155 160

Cys Glu Leu Lys Ile Leu Asp Phe Gly Leu Ala Arg His Thr Asp Asp  
165 170 175

Glu Met Thr Gly Tyr Val Ala Thr Arg Trp Tyr Arg Ala Pro Glu Ile  
180 185 190

Met Leu Asn Trp Met His Tyr Asn Gln Thr Val Asp Ile Trp Ser Val  
195 200 205

Gly Cys Ile Met Ala Glu Leu Leu Thr Gly Arg Thr Leu Phe Pro Gly  
210 215 220

Thr Asp His Ile Asp Gln Leu Lys Leu Ile Leu Arg Leu Val Gly Thr  
225 230 235 240

Pro Gly Ala Glu Leu Leu Lys Lys Ile Ser Ser Glu Ser Ala Arg Asn  
245 250 255

Tyr Ile Gln Ser Leu Thr Gln Met Pro Lys Met Asn Phe Ala Asn Val  
260 265 270

Phe Ile Gly Ala Asn Pro Leu Ala Val Asp Leu Leu Glu Lys Met Leu  
275 280 285

Val Leu Asp Ser Asp Lys Arg Ile Thr Ala Ala Gln Ala Leu Ala His  
290 295 300

Ala Tyr Phe Ala Gln Tyr His Asp Pro Asp Asp Glu Pro Val Ala Asp  
305 310 315 320

Pro Tyr Asp Gln Ser Phe Glu Ser Arg Asp Leu Leu Ile Asp Glu Trp  
325 330 335

Lys Ser Leu Thr Tyr Asp Glu Val Ile Ser Phe Val Pro Pro Pro Leu  
340 345 350

Asp Gln Glu Glu Met Glu Ser  
355

<210> 18

<211> 411

<212> PRT

<213> Homo sapiens

<400> 18

Pro Thr Leu Asp Val Lys Ile Ala Phe Cys Gln Gly Phe Asp Lys Gln  
1 5 10 15

Val Asp Val Ser Tyr Ile Ala Lys His Tyr Asn Met Ser Lys Ser Lys  
20 25 30

Val Asp Asn Gln Phe Tyr Ser Val Glu Val Gly Asp Ser Thr Phe Thr  
35 40 45

Val	Leu	Lys	Arg	Tyr	Gln	Asn	Leu	Lys	Pro	Ile	Gly	Ser	Gly	Ala	Gln	50	55	60	
Gly	Ile	Val	Cys	Ala	Ala	Tyr	Asp	Ala	Val	Leu	Asp	Arg	Asn	Val	Ala	65	70	75	80
Ile	Lys	Lys	Leu	Ser	Arg	Pro	Phe	Gln	Asn	Gln	Thr	His	Ala	Lys	Arg	85	90	95	
Ala	Tyr	Arg	Glu	Leu	Val	Leu	Met	Lys	Cys	Val	Asn	His	Lys	Asn	Ile	100	105	110	
Ile	Ser	Leu	Leu	Asn	Val	Phe	Thr	Pro	Gln	Lys	Thr	Leu	Glu	Glu	Phe	115	120	125	
Gln	Asp	Val	Tyr	Leu	Val	Met	Glu	Leu	Met	Asp	Ala	Asn	Leu	Cys	Gln	130	135	140	
Val	Ile	Gln	Met	Glu	Leu	Asp	His	Glu	Arg	Met	Ser	Tyr	Leu	Leu	Tyr	145	150	155	160
Gln	Met	Leu	Cys	Gly	Ile	Lys	His	Leu	His	Ser	Ala	Gly	Ile	Ile	His	165	170	175	
Arg	Asp	Leu	Lys	Pro	Ser	Asn	Ile	Val	Val	Lys	Ser	Asp	Cys	Thr	Leu	180	185	190	
Lys	Ile	Leu	Asp	Phe	Gly	Leu	Ala	Arg	Thr	Ala	Gly	Thr	Ser	Phe	Met	195	200	205	
Met	Thr	Pro	Tyr	Val	Val	Thr	Arg	Tyr	Tyr	Arg	Ala	Pro	Glu	Val	Ile	210	215	220	
Leu	Gly	Met	Gly	Tyr	Lys	Glu	Asn	Val	Asp	Ile	Trp	Ser	Val	Gly	Cys	225	230	235	240
Ile	Met	Gly	Glu	Met	Val	Arg	His	Lys	Ile	Leu	Phe	Pro	Gly	Arg	Asp	245	250	255	
Tyr	Ile	Asp	Gln	Trp	Asn	Lys	Val	Ile	Glu	Gln	Leu	Gly	Thr	Pro	Cys	260	265	270	
Pro	Glu	Phe	Met	Lys	Lys	Leu	Gln	Pro	Thr	Val	Arg	Asn	Tyr	Val	Glu	275	280	285	
Asn	Arg	Pro	Lys	Tyr	Ala	Gly	Leu	Thr	Phe	Pro	Lys	Leu	Phe	Pro	Asp	290	295	300	
Ser	Leu	Phe	Pro	Ala	Asp	Ser	Glu	His	Asn	Lys	Leu	Lys	Ala	Ser	Gln	305	310	315	320
Ala	Arg	Asp	Leu	Leu	Ser	Lys	Met	Leu	Val	Ile	Asp	Pro	Ala	Lys	Arg	325	330	335	
Ile	Ser	Val	Asp	Asp	Ala	Leu	Gln	His	Pro	Tyr	Ile	Asn	Val	Trp	Tyr	340	345	350	

Asp Pro Ala Glu Val Glu Ala Pro Pro Pro Gln Ile Tyr Asp Lys Gln  
355 360 365

Leu Asp Glu Arg Glu His Thr Ile Glu Glu Trp Lys Glu Leu Ile Tyr  
370 375 380

Lys Glu Val Met Asn Ser Glu Glu Lys Thr Lys Asn Gly Val Val Lys  
385 390 395 400

Gly Gln Pro Ser Pro Ser Ala Gln Val Gln Gln  
405 410

<210> 19

<211> 356

<212> PRT

<213> Mus musculus

<400> 19

Ala Ala Ala Ala Ala Gly Pro Glu Met Val Arg Gly Gln Val Phe Asp  
1 5 10 15

Val Gly Pro Arg Tyr Thr Asn Leu Ser Tyr Ile Gly Glu Gly Ala Tyr  
20 25 30

Gly Met Val Cys Ser Ala Tyr Asp Asn Leu Asn Lys Val Arg Val Ala  
35 40 45

Ile Lys Lys Ile Ser Pro Phe Glu His Gln Thr Tyr Cys Gln Arg Thr  
50 55 60

Leu Arg Glu Ile Lys Ile Leu Leu Arg Phe Arg His Glu Asn Ile Ile  
65 70 75 80

Gly Ile Asn Asp Ile Ile Arg Ala Pro Thr Ile Glu Gln Met Lys Asp  
85 90 95

Val Tyr Ile Val Gln Asp Leu Met Glu Thr Asp Leu Tyr Lys Leu Leu  
100 105 110

Lys Thr Gln His Leu Ser Asn Asp His Ile Cys Tyr Phe Leu Tyr Gln  
115 120 125

Ile Leu Arg Gly Leu Lys Tyr Ile His Ser Ala Asn Val Leu His Arg  
130 135 140

Asp Leu Lys Pro Ser Asn Leu Leu Leu Asn Thr Thr Cys Asp Leu Lys  
145 150 155 160

Ile Cys Asp Phe Gly Leu Ala Arg Val Ala Asp Pro Asp His Asp His  
165 170 175

Thr Gly Phe Leu Thr Glu Tyr Val Ala Thr Arg Trp Tyr Arg Ala Pro  
180 185 190

Glu Ile Met Leu Asn Ser Lys Gly Tyr Thr Lys Ser Ile Asp Ile Trp  
195 200 205

Ser Val Gly Cys Ile Leu Ala Glu Met Leu Ser Asn Arg Pro Ile Phe  
 210 215 220  
 Pro Gly Lys His Tyr Leu Asp Gln Leu Asn His Ile Leu Gly Ile Leu  
 225 230 235 240  
 Gly Ser Pro Ser Gln Glu Asp Leu Asn Cys Ile Ile Asn Leu Lys Ala  
 245 250 255  
 Arg Asn Tyr Leu Leu Ser Leu Pro His Lys Asn Lys Val Pro Trp Asn  
 260 265 270  
 Arg Leu Phe Pro Asn Ala Asp Ser Lys Ala Leu Asp Leu Leu Asp Lys  
 275 280 285  
 Met Leu Thr Phe Asn Pro His Lys Arg Ile Glu Val Glu Gln Ala Leu  
 290 295 300  
 Ala His Pro Tyr Leu Glu Gln Tyr Tyr Asp Pro Ser Asp Glu Pro Ile  
 305 310 315 320  
 Ala Glu Ala Pro Phe Lys Phe Asp Met Glu Leu Asp Asp Leu Pro Lys  
 325 330 335  
 Glu Lys Leu Lys Glu Leu Ile Phe Glu Glu Thr Ala Arg Phe Gln Pro  
 340 345 350  
 Gly Tyr Arg Ser  
 355

<210> 20  
 <211> 316  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (312)  
 <223> Variable amino acid

<400> 20  
 Ser Pro Arg Ser Thr Phe Ser Thr Leu Gln Glu Leu Val Asp His Tyr  
 1 5 10 15  
 Lys Lys Gly Asn Asp Gly Leu Cys Gln Lys Leu Ser Val Pro Cys Met  
 20 25 30  
 Ser Ser Lys Pro Gln Lys Pro Trp Glu Lys Asp Ala Trp Glu Ile Pro  
 35 40 45  
 Arg Glu Ser Leu Lys Leu Glu Lys Lys Leu Gly Ala Gly Gln Phe Gly  
 50 55 60  
 Glu Val Trp Met Ala Thr Tyr Asn Lys His Thr Lys Val Ala Val Lys  
 65 70 75 80



Thr Met Lys Pro Gly Ser Met Ser Val Glu Ala Phe Leu Ala Glu Ala  
 85 90 95  
 Asn Val Met Lys Thr Leu Gln His Asp Lys Leu Val Lys Leu His Ala  
 100 105 110  
 Val Val Thr Lys Glu Pro Ile Tyr Ile Ile Thr Glu Phe Met Ala Lys  
 115 120 125  
 Gly Ser Leu Leu Asp Phe Leu Lys Ser Asp Glu Gly Ser Lys Gln Pro  
 130 135 140  
 Leu Pro Lys Leu Ile Asp Phe Ser Ala Gln Ile Ala Glu Gly Met Ala  
 145 150 155 160  
 Phe Ile Glu Gln Arg Asn Tyr Ile His Arg Asp Leu Arg Ala Ala Asn  
 165 170 175  
 Ile Leu Val Ser Ala Ser Leu Val Cys Lys Ile Ala Asp Phe Gly Leu  
 180 185 190  
 Ala Arg Val Ile Glu Asp Asn Glu Tyr Thr Ala Arg Glu Gly Ala Lys  
 195 200 205  
 Phe Pro Ile Lys Trp Thr Ala Pro Glu Ala Ile Asn Phe Gly Ser Phe  
 210 215 220  
 Thr Ile Lys Ser Asp Val Trp Ser Phe Gly Ile Leu Leu Met Glu Ile  
 225 230 235 240  
 Val Thr Tyr Gly Arg Ile Pro Tyr Pro Gly Met Ser Asn Pro Glu Val  
 245 250 255  
 Ile Arg Ala Leu Glu Arg Gly Tyr Arg Met Pro Arg Pro Glu Asn Cys  
 260 265 270  
 Pro Glu Glu Leu Tyr Asn Ile Met Met Arg Cys Trp Lys Asn Arg Pro  
 275 280 285  
 Glu Glu Arg Pro Thr Phe Glu Tyr Ile Gln Ser Val Leu Asp Asp Phe  
 290 295 300  
 Tyr Thr Ala Thr Glu Ser Gln Xaa Glu Glu Ile Pro  
 305 310 315

<210> 21  
 <211> 279  
 <212> PRT  
 <213> Homo sapiens

<400> 21  
 Lys Pro Trp Trp Glu Asp Glu Trp Glu Val Pro Arg Glu Thr Leu Lys  
 1 5 10 15  
 Leu Val Glu Arg Leu Gly Ala Gly Gln Phe Gly Glu Val Trp Met Gly  
 20 25 30

[illegible]

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<210> 22
<211> 319
<212> PRT
<213> Homo sapiens
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<400> 22  
Thr Ser Arg Thr Gln Phe Asn Ser Leu Gln Gln Leu Val Ala Tyr Tyr  
1 5 10 15

Ser Lys His Ala Asp Gly Leu Cys His Arg Leu Thr Thr Val Cys Pro  
                   20                                  25                                  30

Thr Ser Lys Pro Gln Thr Gln Gly Leu Ala Lys Asp Ala Trp Glu Ile  
                   35                                  40                                  45

Pro Arg Glu Ser Leu Arg Leu Glu Val Lys Leu Gly Gln Gly Cys Phe  
                   50                                  55                                  60

Gly Glu Val Trp Met Gly Thr Trp Asn Gly Thr Thr Arg Val Ala Ile  
                   65                                  70                                  75                                  80

Lys Thr Leu Lys Pro Gly Thr Met Ser Pro Glu Ala Phe Leu Gln Glu  
                                   85                                  90                                  95

Ala Gln Val Met Lys Lys Leu Arg His Glu Lys Leu Val Gln Leu Tyr  
                   100                                  105                                  110

Ala Val Val Ser Glu Glu Pro Ile Tyr Ile Val Thr Glu Tyr Met Ser  
                   115                                  120                                  125

Lys Gly Ser Leu Leu Asp Phe Leu Lys Gly Glu Thr Gly Lys Tyr Leu  
                   130                                  135                                  140

Arg Leu Pro Gln Leu Val Asp Met Ala Ala Gln Ile Ala Ser Gly Met  
                   145                                  150                                  155                                  160

Ala Tyr Val Glu Arg Met Asn Tyr Val His Arg Asp Leu Arg Ala Ala  
                                   165                                  170                                  175

Asn Ile Leu Val Gly Glu Asn Leu Val Cys Lys Val Ala Asp Phe Gly  
                   180                                  185                                  190

Leu Ala Arg Leu Ile Glu Asp Asn Glu Tyr Thr Ala Arg Gln Gly Ala  
                   195                                  200                                  205

Lys Phe Pro Ile Lys Trp Thr Ala Pro Glu Ala Ala Leu Tyr Gly Arg  
                   210                                  215                                  220

Phe Thr Ile Lys Ser Asp Val Trp Ser Phe Gly Ile Leu Leu Thr Glu  
                   225                                  230                                  235                                  240

Leu Thr Thr Lys Gly Arg Val Pro Tyr Pro Gly Met Val Asn Arg Glu  
                                   245                                  250                                  255

Val Leu Asp Gln Val Glu Arg Gly Tyr Arg Met Pro Cys Pro Pro Glu  
                   260                                  265                                  270

Cys Pro Glu Ser Leu His Asp Leu Met Cys Gln Cys Trp Arg Lys Glu  
                   275                                  280                                  285

Pro Glu Glu Arg Pro Thr Phe Glu Tyr Leu Gln Ala Phe Leu Glu Asp  
                   290                                  295                                  300

Tyr Phe Thr Ser Thr Glu Pro Gln Tyr Gln Pro Gly Glu Asn Leu  
                   305                                  310                                  315

<210> 23  
 <211> 293  
 <212> PRT  
 <213> Mus musculus

<400> 23  
 Gly Ala Met Asp Pro Ser Ser Pro Asn Tyr Asp Lys Trp Glu Met Glu  
     1                    5                    10                    15  
 Arg Thr Asp Ile Thr Met Lys His Lys Leu Gly Gly Gly Gln Tyr Gly  
           20                    25                    30  
 Glu Val Tyr Glu Gly Val Trp Lys Lys Tyr Ser Leu Thr Val Ala Val  
           35                    40                    45  
 Lys Thr Leu Lys Glu Asp Thr Met Glu Val Glu Glu Phe Leu Lys Glu  
           50                    55                    60  
 Ala Ala Val Met Lys Glu Ile Lys His Pro Asn Leu Val Gln Leu Leu  
           65                    70                    75                    80  
 Gly Val Cys Thr Arg Glu Pro Pro Phe Tyr Ile Ile Thr Glu Phe Met  
                     85                    90                    95  
 Thr Tyr Gly Asn Leu Leu Asp Tyr Leu Arg Glu Cys Asn Arg Gln Glu  
                     100                    105                    110  
 Val Ser Ala Val Val Leu Leu Tyr Met Ala Thr Gln Ile Ser Ser Ala  
           115                    120                    125  
 Met Glu Tyr Leu Glu Lys Lys Asn Phe Ile His Arg Asp Leu Ala Ala  
           130                    135                    140  
 Arg Asn Cys Leu Val Gly Glu Asn His Leu Val Lys Val Ala Asp Phe  
           145                    150                    155                    160  
 Gly Leu Ser Arg Leu Met Thr Gly Asp Thr Tyr Thr Ala His Ala Gly  
                     165                    170                    175  
 Ala Lys Phe Pro Ile Lys Trp Thr Ala Pro Glu Ser Leu Ala Tyr Asn  
                     180                    185                    190  
 Lys Phe Ser Ile Lys Ser Asp Val Trp Ala Phe Gly Val Leu Leu Trp  
           195                    200                    205  
 Glu Ile Ala Thr Tyr Gly Met Ser Pro Tyr Pro Gly Ile Asp Leu Ser  
           210                    215                    220  
 Gln Val Tyr Glu Leu Leu Glu Lys Asp Tyr Arg Met Glu Arg Pro Glu  
           225                    230                    235                    240  
 Gly Cys Pro Glu Lys Val Tyr Glu Leu Met Arg Ala Cys Trp Gln Trp  
                     245                    250                    255  
 Asn Pro Ser Asp Arg Pro Ser Phe Ala Glu Ile His Gln Ala Phe Glu  
                     260                    265                    270

Thr Met Phe Gln Glu Ser Ser Ile Ser Asp Glu Val Glu Lys Glu Leu  
 275 280 285

Gly Lys Arg Gly Thr  
 290

<210> 24

<211> 312

<212> PRT

<213> Mus musculus

<400> 24

Gly His Met Thr Pro Gly Met Lys Ile Phe Ile Asp Pro Phe Thr Phe  
 1 5 10 15

Glu Asp Pro Asn Glu Ala Val Arg Glu Phe Ala Lys Glu Ile Asp Ile  
 20 25 30

Ser Cys Val Lys Ile Glu Gln Val Ile Gly Ala Gly Glu Phe Gly Glu  
 35 40 45

Val Cys Ser Gly His Leu Lys Leu Pro Gly Lys Arg Glu Ile Phe Val  
 50 55 60

Ala Ile Lys Thr Leu Lys Ser Gly Tyr Thr Glu Lys Gln Arg Arg Asp  
 65 70 75 80

Phe Leu Ser Glu Ala Ser Ile Met Gly Gln Phe Asp His Pro Asn Val  
 85 90 95

Ile His Leu Glu Gly Val Val Thr Lys Ser Thr Pro Val Met Ile Ile  
 100 105 110

Thr Glu Phe Met Glu Asn Gly Ser Leu Asp Ser Phe Leu Arg Gln Asn  
 115 120 125

Asp Gly Gln Phe Thr Val Ile Gln Leu Val Gly Met Leu Arg Gly Ile  
 130 135 140

Ala Ala Gly Met Lys Tyr Leu Ala Asp Met Asn Tyr Val His Arg Asp  
 145 150 155 160

Leu Ala Ala Arg Asn Ile Leu Val Asn Ser Asn Leu Val Cys Lys Val  
 165 170 175

Ser Asp Phe Gly Leu Ser Arg Phe Leu Glu Asp Asp Thr Ser Asp Pro  
 180 185 190

Thr Tyr Thr Ser Ala Leu Gly Gly Lys Ile Pro Ile Arg Trp Thr Ala  
 195 200 205

Pro Glu Ala Ile Gln Tyr Arg Lys Phe Thr Ser Ala Ser Asp Val Trp  
 210 215 220

Ser Tyr Gly Ile Val Met Trp Glu Val Met Ser Tyr Gly Glu Arg Pro  
 225 230 235 240

Met Leu Asp Cys Trp Gln Lys Asp Arg Asn His Arg Pro Lys Phe Gly  
275 280 285

Gln Ile Val Asn Thr Leu Asp Lys Met Ile Arg Asn Pro Asn Ser Leu  
290 295 300

Lys Ala Met Ala Pro Leu Ser Ser  
305 310

<213> Homo sapiens

Met Gly Gly Ser Val Ala Ala Gln Asp Glu Phe Tyr Arg Ser Gly Trp  
1 5 10 15

Ala Leu Asn Met Lys Glu Leu Lys Leu Leu Gln Thr Ile Gly Lys Gly  
20 25 30

Glu Phe Gly Asp Val Met Leu Gly Asp Tyr Arg Gly Asn Lys Val Ala  
35 40 45

Val Lys Cys Ile Lys Asn Asp Ala Thr Ala Gln Ala Phe Leu Ala Glu  
50 55 60

Ala Ser Val Met Thr Gln Leu Arg His Ser Asn Leu Val Gln Leu Leu  
65 70 75 80

Gly Val Ile Val Glu Glu Lys Gly Gly Leu Tyr Ile Val Thr Glu Tyr  
85 90 95

Met Ala Lys Gly Ser Leu Val Asp Tyr Leu Arg Ser Arg Gly Arg Ser  
100 105 110

Val Leu Gly Gly Asp Cys Leu Leu Lys Phe Ser Leu Asp Val Cys Glu  
115 120 125

Ala Met Glu Tyr Leu Glu Gly Asn Asn Phe Val His Arg Asp Leu Ala  
130 135 140

Ala Arg Asn Val Leu Val Ser Glu Asp Asn Val Ala Lys Val Ser Asp  
145 150 155 160

Phe Gly Leu Thr Lys Glu Ala Ser Ser Thr Gln Asp Thr Gly Lys Leu  
165 170 175

Pro Val Lys Trp Thr Ala Pro Glu Ala Leu Arg Glu Lys Lys Phe Ser  
180 185 190

Thr Lys Ser Asp Val Trp Ser Phe Gly Ile Leu Leu Trp Glu Ile Tyr  
 195 200 205

Ser Phe Gly Arg Val Pro Tyr Pro Arg Ile Pro Leu Lys Asp Val Val  
 210 215 220

Pro Arg Val Glu Lys Gly Tyr Lys Met Asp Ala Pro Asp Gly Cys Pro  
 225 230 235 240

Pro Ala Val Tyr Glu Val Met Lys Asn Cys Trp His Leu Asp Ala Ala  
 245 250 255

Met Arg Pro Ser Phe Leu Gln Leu Arg Glu Gln Leu Glu His Ile Lys  
 260 265 270

Thr His Glu Leu His Leu  
 275

<210> 26

<211> 366

<212> PRT

<213> Homo sapiens

<400> 26

Met Asp Pro Asp Glu Leu Pro Leu Asp Glu His Cys Glu Arg Leu Pro  
 1 5 10 15

Tyr Asp Ala Ser Lys Trp Glu Phe Pro Arg Asp Arg Leu Lys Leu Gly  
 20 25 30

Lys Pro Leu Gly Arg Gly Ala Phe Gly Gln Val Ile Glu Ala Asp Ala  
 35 40 45

Phe Gly Ile Asp Lys Thr Ala Thr Cys Arg Thr Val Ala Val Lys Met  
 50 55 60

Leu Lys Glu Gly Ala Thr His Ser Glu His Arg Ala Leu Met Ser Glu  
 65 70 75 80

Leu Lys Ile Leu Ile His Ile Gly His His Leu Asn Val Val Asn Leu  
 85 90 95

Leu Gly Ala Cys Thr Lys Pro Gly Gly Pro Leu Met Val Ile Val Glu  
 100 105 110

Phe Cys Lys Phe Gly Asn Leu Ser Thr Tyr Leu Arg Ser Lys Arg Asn  
 115 120 125

Glu Phe Val Pro Tyr Lys Thr Lys Gly Ala Arg Phe Arg Gln Gly Lys  
 130 135 140

Asp Tyr Val Gly Ala Ile Pro Val Asp Leu Lys Arg Arg Leu Asp Ser  
 145 150 155 160

Ile Thr Ser Ser Gln Ser Ser Ala Ser Ser Gly Phe Val Glu Glu Lys  
 165 170 175

Ser Leu Ser Asp Val Glu Glu Glu Glu Ala Pro Glu Asp Leu Tyr Lys  
 180 185 190

Asp Phe Leu Thr Leu Glu His Leu Ile Cys Tyr Ser Phe Gln Val Ala  
 195 200 205

Lys Gly Met Glu Phe Leu Ala Ser Arg Lys Cys Ile His Arg Asp Leu  
 210 215 220

Ala Ala Arg Asn Ile Leu Leu Ser Glu Lys Asn Val Val Lys Ile Cys  
 225 230 235 240

Asp Phe Gly Leu Ala Arg Asp Ile Tyr Lys Asp Pro Asp Tyr Val Arg  
 245 250 255

Lys Gly Asp Ala Arg Leu Pro Leu Lys Trp Met Ala Pro Glu Thr Ile  
 260 265 270

Phe Asp Arg Val Tyr Thr Ile Gln Ser Asp Val Trp Ser Phe Gly Val  
 275 280 285

Leu Leu Trp Glu Ile Phe Ser Leu Gly Ala Ser Pro Tyr Pro Gly Val  
 290 295 300

Lys Ile Asp Glu Glu Phe Cys Arg Arg Leu Lys Glu Gly Thr Arg Met  
 305 310 315 320

Arg Ala Pro Asp Tyr Thr Thr Pro Glu Met Tyr Gln Thr Met Leu Asp  
 325 330 335

Cys Trp His Gly Glu Pro Ser Gln Arg Pro Thr Phe Ser Glu Leu Val  
 340 345 350

Glu His Leu Gly Asn Leu Leu Gln Ala Asn Ala Gln Gln Asp  
 355 360 365

<210> 27

<211> 310

<212> PRT

<213> Homo sapiens

<400> 27

Met Val Ala Gly Val Ser Glu Tyr Glu Leu Pro Glu Asp Pro Arg Trp  
 1 5 10 15

Glu Leu Pro Arg Asp Arg Leu Val Leu Gly Lys Pro Leu Gly Glu Gly  
 20 25 30

Ala Phe Gly Gln Val Val Leu Ala Glu Ala Ile Gly Leu Asp Lys Asp  
 35 40 45

Lys Pro Asn Arg Val Thr Lys Val Ala Val Lys Met Leu Lys Ser Asp  
 50 55 60

Ala Thr Glu Lys Asp Leu Ser Asp Leu Ile Ser Glu Met Glu Met Met  
 65 70 75 80



Lys Met Ile Gly Lys His Lys Asn Ile Ile Asn Leu Leu Gly Ala Cys  
                                     85                                    90                                    95  
 Thr Gln Asp Gly Pro Leu Tyr Val Ile Val Glu Tyr Ala Ser Lys Gly  
                                     100                                    105                                    110  
 Asn Leu Arg Glu Tyr Leu Gln Ala Arg Arg Pro Pro Gly Leu Glu Tyr  
                                     115                                    120                                    125  
 Ser Tyr Asn Pro Ser His Asn Pro Glu Glu Gln Leu Ser Ser Lys Asp  
                                     130                                    135                                    140  
 Leu Val Ser Cys Ala Tyr Gln Val Ala Arg Gly Met Glu Tyr Leu Ala  
                                     145                                    150                                    155                                    160  
 Ser Lys Lys Cys Ile His Arg Asp Leu Ala Ala Arg Asn Val Leu Val  
                                     165                                    170                                    175  
 Thr Glu Asp Asn Val Met Lys Ile Ala Asp Phe Gly Leu Ala Arg Asp  
                                     180                                    185                                    190  
 Ile His His Ile Asp Tyr Tyr Lys Lys Thr Thr Asn Gly Arg Leu Pro  
                                     195                                    200                                    205  
 Val Lys Trp Met Ala Pro Glu Ala Leu Phe Asp Arg Ile Tyr Thr His  
                                     210                                    215                                    220  
 Gln Ser Asp Val Trp Ser Phe Gly Val Leu Leu Trp Glu Ile Phe Thr  
                                     225                                    230                                    235                                    240  
 Leu Gly Gly Ser Pro Tyr Pro Gly Val Pro Val Glu Glu Leu Phe Lys  
                                     245                                    250                                    255  
 Leu Leu Lys Glu Gly His Arg Met Asp Lys Pro Ser Asn Cys Thr Asn  
                                     260                                    265                                    270  
 Glu Leu Tyr Met Met Met Arg Asp Cys Trp His Ala Val Pro Ser Gln  
                                     275                                    280                                    285  
 Arg Pro Thr Phe Lys Gln Leu Val Glu Asp Leu Asp Arg Ile Val Ala  
                                     290                                    295                                    300  
 Leu Thr Ser Asn Gln Glu  
                                     305                                    310

&lt;210&gt; 28

&lt;211&gt; 327

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 28

Met Lys Lys His His His His His Gly Lys Asn Asn Pro Asp Pro  
           1                                    5                                    10                                    15

Thr Ile Tyr Pro Val Leu Asp Trp Asn Asp Ile Lys Phe Gln Asp Val  
                                     20                                    25                                    30

Ile Gly Glu Gly Asn Phe Gly Gln Val Leu Lys Ala Arg Ile Lys Lys  
                   35                                  40                                  45  
 Asp Gly Leu Arg Met Asp Ala Ala Ile Lys Arg Met Lys Glu Tyr Ala  
           50                                  55                                  60  
 Ser Lys Asp Asp His Arg Asp Phe Ala Gly Glu Leu Glu Val Leu Cys  
       65                                  70                                  75                                  80  
 Lys Leu Gly His His Pro Asn Ile Ile Asn Leu Leu Gly Ala Cys Glu  
                                   85                                  90                                  95  
 His Arg Gly Tyr Leu Tyr Leu Ala Ile Glu Tyr Ala Pro His Gly Asn  
                   100                                  105                                  110  
 Leu Leu Asp Phe Leu Arg Lys Ser Arg Val Leu Glu Thr Asp Pro Ala  
           115                                  120                                  125  
 Phe Ala Ile Ala Asn Ser Thr Ala Ser Thr Leu Ser Ser Gln Gln Leu  
       130                                  135                                  140  
 Leu His Phe Ala Ala Asp Val Ala Arg Gly Met Asp Tyr Leu Ser Gln  
       145                                  150                                  155                                  160  
 Lys Gln Phe Ile His Arg Asp Leu Ala Ala Arg Asn Ile Leu Val Gly  
                                   165                                  170                                  175  
 Glu Asn Tyr Val Ala Lys Ile Ala Asp Phe Gly Leu Ser Arg Gly Gln  
                   180                                  185                                  190  
 Glu Val Tyr Val Lys Lys Thr Met Gly Arg Leu Pro Val Arg Trp Met  
           195                                  200                                  205  
 Ala Ile Glu Ser Leu Asn Tyr Ser Val Tyr Thr Thr Asn Ser Asp Val  
       210                                  215                                  220  
 Trp Ser Tyr Gly Val Leu Leu Trp Glu Ile Val Ser Leu Gly Gly Thr  
       225                                  230                                  235                                  240  
 Pro Tyr Cys Gly Met Thr Cys Ala Glu Leu Tyr Glu Lys Leu Pro Gln  
                                   245                                  250                                  255  
 Gly Tyr Arg Leu Glu Lys Pro Leu Asn Cys Asp Asp Glu Val Tyr Asp  
                   260                                  265                                  270  
 Leu Met Arg Gln Cys Trp Arg Glu Lys Pro Tyr Glu Arg Pro Ser Phe  
           275                                  280                                  285  
 Ala Gln Ile Leu Val Ser Leu Asn Arg Met Leu Glu Glu Arg Lys Thr  
       290                                  295                                  300  
 Tyr Val Asn Thr Thr Leu Tyr Glu Lys Phe Thr Tyr Ala Gly Ile Asp  
       305                                  310                                  315                                  320  
 Cys Ser Ala Glu Glu Ala Ala  
                                   325

<210> 29  
 <211> 299  
 <212> PRT  
 <213> Homo sapiens

<220>  
 <221> MOD\_RES  
 <222> (174)  
 <223> Variable amino acid

<220>  
 <221> MOD\_RES  
 <222> (178)..(179)  
 <223> Variable amino acid

<400> 29  
 Val Pro Asp Glu Trp Glu Val Ala Arg Glu Lys Ile Thr Met Ser Arg  
 1 5 10 15  
 Glu Leu Gly Gln Gly Ser Phe Gly Met Val Tyr Glu Gly Val Ala Lys  
 20 25 30  
 Gly Val Val Lys Asp Glu Pro Glu Thr Arg Val Ala Ile Lys Thr Val  
 35 40 45  
 Asn Glu Ala Ala Ser Met Arg Glu Arg Ile Glu Phe Leu Asn Glu Ala  
 50 55 60  
 Ser Val Met Lys Glu Phe Asn Cys His His Val Val Arg Leu Leu Gly  
 65 70 75 80  
 Val Val Ser Gln Gly Gln Pro Thr Leu Val Ile Met Glu Leu Met Thr  
 85 90 95  
 Arg Gly Asp Leu Lys Ser Tyr Leu Arg Ser Leu Arg Pro Glu Met Glu  
 100 105 110  
 Asn Asn Pro Val Leu Ala Pro Pro Ser Leu Ser Lys Met Ile Gln Met  
 115 120 125  
 Ala Gly Glu Ile Ala Asp Gly Met Ala Tyr Leu Asn Ala Asn Lys Phe  
 130 135 140  
 Val His Arg Asp Leu Ala Ala Arg Asn Cys Met Val Ala Glu Asp Phe  
 145 150 155 160  
 Thr Val Lys Ile Gly Asp Phe Gly Met Thr Arg Asp Ile Xaa Glu Thr  
 165 170 175  
 Asp Xaa Xaa Arg Lys Gly Gly Lys Gly Leu Leu Pro Val Arg Trp Met  
 180 185 190  
 Ser Pro Glu Ser Leu Lys Asp Gly Val Phe Thr Thr Tyr Ser Asp Val  
 195 200 205  
 Trp Ser Phe Gly Val Val Leu Trp Glu Ile Ala Thr Leu Ala Glu Gln  
 210 215 220

Pro Tyr Gln Gly Leu Ser Asn Glu Gln Val Leu Arg Phe Val Met Glu  
225 230 235 240

Gly Gly Leu Leu Asp Lys Pro Asp Asn Cys Pro Asp Met Leu Leu Glu  
245 250 255

Leu Met Arg Met Cys Trp Gln Tyr Asn Pro Lys Met Arg Pro Ser Phe  
260 265 270

Leu Glu Ile Ile Ser Ser Ile Lys Glu Glu Met Glu Pro Gly Phe Arg  
275 280 285

Glu Val Ser Phe Tyr Tyr Ser Glu Glu Asn Lys  
290 295

<210> 30

<211> 306

<212> PRT

<213> Homo sapiens

<400> 30

Val Phe Pro Ser Ser Val Phe Val Pro Asp Glu Trp Glu Val Ser Arg  
1 5 10 15

Glu Lys Ile Thr Leu Leu Arg Glu Leu Gly Gln Gly Ser Phe Gly Met  
20 25 30

Val Tyr Glu Gly Asn Ala Arg Asp Ile Ile Lys Gly Glu Ala Glu Thr  
35 40 45

Arg Val Ala Val Lys Thr Val Asn Glu Ser Ala Ser Leu Arg Glu Arg  
50 55 60

Ile Glu Phe Leu Asn Glu Ala Ser Val Met Lys Gly Phe Thr Cys His  
65 70 75 80

His Val Val Arg Leu Leu Gly Val Val Ser Lys Gly Gln Pro Thr Leu  
85 90 95

Val Val Met Glu Leu Met Ala His Gly Asp Leu Lys Ser Tyr Leu Arg  
100 105 110

Ser Leu Arg Pro Glu Ala Glu Asn Asn Pro Gly Arg Pro Pro Pro Thr  
115 120 125

Leu Gln Glu Met Ile Gln Met Ala Ala Glu Ile Ala Asp Gly Met Ala  
130 135 140

Tyr Leu Asn Ala Lys Lys Phe Val His Arg Asp Leu Ala Ala Arg Asn  
145 150 155 160

Cys Met Val Ala His Asp Phe Thr Val Lys Ile Gly Asp Phe Gly Met  
165 170 175

Thr Arg Asp Ile Tyr Glu Thr Asp Tyr Tyr Arg Lys Gly Gly Lys Gly  
180 185 190

Leu Leu Pro Val Arg Trp Met Ala Pro Glu Ser Leu Lys Asp Gly Val  
 195 200 205  
 Phe Thr Thr Ser Ser Asp Met Trp Ser Phe Gly Val Val Leu Trp Glu  
 210 215 220  
 Ile Thr Ser Leu Ala Glu Gln Pro Tyr Gln Gly Leu Ser Asn Glu Gln  
 225 230 235 240  
 Val Leu Lys Phe Val Met Asp Gly Gly Tyr Leu Asp Gln Pro Asp Asn  
 245 250 255  
 Cys Pro Glu Arg Val Thr Asp Leu Met Arg Met Cys Trp Gln Phe Asn  
 260 265 270  
 Pro Lys Met Arg Pro Thr Phe Leu Glu Ile Val Asn Leu Leu Lys Asp  
 275 280 285  
 Asp Leu His Pro Ser Phe Pro Glu Val Ser Phe Phe His Ser Glu Glu  
 290 295 300  
 Asn Lys  
 305

<210> 31  
 <211> 352  
 <212> PRT  
 <213> Homo sapiens

<400> 31  
 Ser Lys Val Thr Thr Val Val Ala Thr Pro Gly Gln Gly Pro Asp Arg  
 1 5 10 15  
 Pro Gln Glu Val Ser Tyr Thr Asp Thr Lys Val Ile Gly Asn Gly Ser  
 20 25 30  
 Phe Gly Val Val Tyr Gln Ala Lys Leu Cys Asp Ser Gly Glu Leu Val  
 35 40 45  
 Ala Ile Lys Lys Val Leu Gln Gly Lys Ala Phe Lys Asn Arg Glu Leu  
 50 55 60  
 Gln Ile Met Arg Lys Leu Asp His Cys Asn Ile Val Arg Leu Arg Tyr  
 65 70 75 80  
 Phe Phe Tyr Ser Ser Gly Glu Lys Lys Asp Glu Val Tyr Leu Asn Leu  
 85 90 95  
 Val Leu Asp Tyr Val Pro Glu Thr Val Tyr Arg Val Ala Arg His Tyr  
 100 105 110  
 Ser Arg Ala Lys Gln Thr Leu Pro Val Ile Tyr Val Lys Leu Tyr Met  
 115 120 125  
 Tyr Gln Leu Phe Arg Ser Leu Ala Tyr Ile His Ser Phe Gly Ile Cys  
 130 135 140

His Arg Asp Ile Lys Pro Gln Asn Leu Leu Leu Asp Pro Asp Thr Ala  
 145 150 155 160  
 Val Leu Lys Leu Cys Asp Phe Gly Ser Ala Lys Gln Leu Val Arg Gly  
 165 170 175  
 Glu Pro Asn Val Ser Tyr Ile Cys Ser Arg Tyr Tyr Arg Ala Pro Glu  
 180 185 190  
 Leu Ile Phe Gly Ala Thr Asp Tyr Thr Ser Ser Ile Asp Val Trp Ser  
 195 200 205  
 Ala Gly Cys Val Leu Ala Glu Leu Leu Leu Gly Gln Pro Ile Phe Pro  
 210 215 220  
 Gly Asp Ser Gly Val Asp Gln Leu Val Glu Ile Ile Lys Val Leu Gly  
 225 230 235 240  
 Thr Pro Thr Arg Glu Gln Ile Arg Glu Met Asn Pro Asn Tyr Thr Glu  
 245 250 255  
 Phe Ala Phe Pro Gln Ile Lys Ala His Pro Trp Thr Lys Val Phe Arg  
 260 265 270  
 Pro Arg Thr Pro Pro Glu Ala Ile Ala Leu Cys Ser Arg Leu Leu Glu  
 275 280 285  
 Tyr Thr Pro Thr Ala Arg Leu Thr Pro Leu Glu Ala Cys Ala His Ser  
 290 295 300  
 Phe Phe Asp Glu Leu Arg Asp Pro Asn Val Lys Leu Pro Asn Gly Arg  
 305 310 315 320  
 Asp Thr Pro Ala Leu Phe Asn Phe Thr Thr Gln Glu Leu Ser Ser Asn  
 325 330 335  
 Pro Pro Leu Ala Thr Ile Leu Ile Pro Pro His Ala Arg Ile Gln Ala  
 340 345 350

<210> 32  
 <211> 321  
 <212> PRT  
 <213> Homo sapiens

<400> 32  
 Lys Glu Leu Tyr Glu Lys Tyr Met Ile Ala Glu Asp Leu Gly Arg Gly  
 1 5 10 15  
 Glu Phe Gly Ile Val His Arg Cys Val Glu Thr Ser Ser Lys Lys Thr  
 20 25 30  
 Tyr Met Ala Lys Phe Val Lys Val Lys Gly Thr Asp Gln Val Leu Val  
 35 40 45

Lys Lys Glu Ile Ser Ile Leu Asn Ile Ala Arg His Arg Asn Ile Leu  
     50                            55                            60  
 His Leu His Glu Ser Phe Glu Ser Met Glu Glu Leu Val Met Ile Phe  
     65                            70                            75                            80  
 Glu Phe Ile Ser Gly Leu Asp Ile Phe Glu Arg Ile Asn Thr Ser Ala  
                             85                            90                            95  
 Phe Glu Leu Asn Glu Arg Glu Ile Val Ser Tyr Val His Gln Val Cys  
                             100                            105                            110  
 Glu Ala Leu Gln Phe Leu His Ser His Asn Ile Gly His Phe Asp Ile  
                             115                            120                            125  
 Arg Pro Glu Asn Ile Ile Tyr Gln Thr Arg Arg Ser Ser Thr Ile Lys  
     130                            135                            140  
 Ile Ile Glu Phe Gly Gln Ala Arg Gln Leu Lys Pro Gly Asp Asn Phe  
     145                            150                            155                            160  
 Arg Leu Leu Phe Thr Ala Pro Glu Tyr Tyr Ala Pro Glu Val His Gln  
                             165                            170                            175  
 His Asp Val Val Ser Thr Ala Thr Asp Met Trp Ser Leu Gly Thr Leu  
                             180                            185                            190  
 Val Tyr Val Leu Leu Ser Gly Ile Asn Pro Phe Leu Ala Glu Thr Asn  
     195                            200                            205  
 Gln Gln Ile Ile Glu Asn Ile Met Asn Ala Glu Tyr Thr Phe Asp Glu  
     210                            215                            220  
 Glu Ala Phe Lys Glu Ile Ser Ile Glu Ala Met Asp Phe Val Asp Arg  
     225                            230                            235                            240  
 Leu Leu Val Lys Glu Arg Lys Ser Arg Met Thr Ala Ser Glu Ala Leu  
                             245                            250                            255  
 Gln His Pro Trp Leu Lys Gln Lys Ile Glu Arg Val Ser Thr Lys Val  
                             260                            265                            270  
 Ile Arg Thr Leu Lys His Arg Arg Tyr Tyr His Thr Leu Ile Lys Lys  
     275                            280                            285  
 Asp Leu Asn Met Val Val Ser Ala Ala Arg Ile Ser Cys Gly Gly Ala  
     290                            295                            300  
 Ile Arg Ser Gln Lys Gly Val Ser Val Ala Lys Val Lys Val Ala Ser  
     305                            310                            315                            320  
 Ile

<210> 33  
 <211> 327  
 <212> PRT  
 <213> Zea mays

<400> 33

Ser	Lys	Ala	Arg	Val	Tyr	Ala	Asp	Val	Asn	Val	Leu	Arg	Pro	Lys	Glu	1	5	10	15
Tyr	Trp	Asp	Tyr	Glu	Ala	Leu	Thr	Val	Gln	Trp	Gly	Glu	Gln	Asp	Asp	20	25	30	
Tyr	Glu	Val	Val	Arg	Lys	Val	Gly	Arg	Gly	Lys	Tyr	Ser	Glu	Val	Phe	35	40	45	
Glu	Gly	Ile	Asn	Val	Asn	Asn	Asn	Glu	Lys	Cys	Ile	Ile	Lys	Ile	Leu	50	55	60	
Lys	Pro	Val	Lys	Lys	Lys	Lys	Ile	Lys	Arg	Glu	Ile	Lys	Ile	Leu	Gln	65	70	75	80
Asn	Leu	Cys	Gly	Gly	Pro	Asn	Ile	Val	Lys	Leu	Leu	Asp	Ile	Val	Arg	85	90	95	
Asp	Gln	His	Ser	Lys	Thr	Pro	Ser	Leu	Ile	Phe	Glu	Tyr	Val	Asn	Asn	100	105	110	
Thr	Asp	Phe	Lys	Val	Leu	Tyr	Pro	Thr	Leu	Thr	Asp	Tyr	Asp	Ile	Arg	115	120	125	
Tyr	Tyr	Ile	Tyr	Glu	Leu	Leu	Lys	Ala	Leu	Asp	Tyr	Cys	His	Ser	Gln	130	135	140	
Gly	Ile	Met	His	Arg	Asp	Val	Lys	Pro	His	Asn	Val	Met	Ile	Asp	His	145	150	155	160
Glu	Leu	Arg	Lys	Leu	Arg	Leu	Ile	Asp	Trp	Gly	Leu	Ala	Glu	Phe	Tyr	165	170	175	
His	Pro	Gly	Lys	Glu	Tyr	Asn	Val	Arg	Val	Ala	Ser	Arg	Tyr	Phe	Lys	180	185	190	
Gly	Pro	Glu	Leu	Leu	Val	Asp	Leu	Gln	Asp	Tyr	Asp	Tyr	Ser	Leu	Asp	195	200	205	
Met	Trp	Ser	Leu	Gly	Cys	Met	Phe	Ala	Gly	Met	Ile	Phe	Arg	Lys	Glu	210	215	220	
Pro	Phe	Phe	Tyr	Gly	His	Asp	Asn	His	Asp	Gln	Leu	Val	Lys	Ile	Ala	225	230	235	240
Lys	Val	Leu	Gly	Thr	Asp	Gly	Leu	Asn	Val	Tyr	Leu	Asn	Lys	Tyr	Arg	245	250	255	
Ile	Glu	Leu	Asp	Pro	Gln	Leu	Glu	Ala	Leu	Val	Gly	Arg	His	Ser	Arg	260	265	270	



Lys Pro Trp Leu Lys Phe Met Asn Ala Asp Asn Gln His Leu Val Ser  
 275 280 285

Pro Glu Ala Ile Asp Phe Leu Asp Lys Leu Leu Arg Tyr Asp His Gln  
 290 295 300

Glu Arg Leu Thr Ala Leu Glu Ala Met Thr His Pro Tyr Phe Gln Gln  
 305 310 315 320

Val Arg Ala Ala Glu Asn Ser  
 325

<210> 34

<211> 297

<212> PRT

<213> Homo sapiens

<400> 34

Ser Asp Glu Glu Ile Leu Glu Lys Leu Arg Ser Ile Val Ser Val Gly  
 1 5 10 15

Asp Pro Lys Lys Lys Tyr Thr Arg Phe Glu Lys Ile Gly Gln Gly Ala  
 20 25 30

Ser Gly Thr Val Tyr Thr Ala Met Asp Val Ala Thr Gly Gln Glu Val  
 35 40 45

Ala Ile Arg Gln Met Asn Leu Gln Gln Gln Pro Lys Lys Glu Leu Ile  
 50 55 60

Ile Asn Glu Ile Leu Val Met Arg Glu Asn Lys Asn Pro Asn Ile Val  
 65 70 75 80

Asn Tyr Leu Asp Ser Tyr Leu Val Gly Asp Glu Leu Trp Val Val Met  
 85 90 95

Glu Tyr Leu Ala Gly Gly Ser Leu Thr Asp Val Val Thr Glu Thr Cys  
 100 105 110

Met Asp Glu Gly Gln Ile Ala Ala Val Cys Arg Glu Cys Leu Gln Ala  
 115 120 125

Leu Glu Phe Leu His Ser Asn Gln Val Ile His Arg Asp Ile Lys Ser  
 130 135 140

Asp Asn Ile Leu Leu Gly Met Asp Gly Ser Val Lys Leu Thr Asp Phe  
 145 150 155 160

Gly Phe Cys Ala Gln Ile Thr Pro Glu Gln Ser Lys Arg Ser Thr Met  
 165 170 175

Val Gly Thr Pro Tyr Trp Met Ala Pro Glu Val Val Thr Arg Lys Ala  
 180 185 190

Tyr Gly Pro Lys Val Asp Ile Trp Ser Leu Gly Ile Met Ala Ile Glu  
 195 200 205

Met Ile Glu Gly Glu Pro Pro Tyr Leu Asn Glu Asn Pro Leu Arg Ala  
 210 215 220

Leu Tyr Leu Ile Ala Thr Asn Gly Thr Pro Glu Leu Gln Asn Pro Glu  
 225 230 235 240

Lys Leu Ser Ala Ile Phe Arg Asp Phe Leu Asn Arg Cys Leu Asp Met  
 245 250 255

Asp Val Glu Lys Arg Gly Ser Ala Lys Glu Leu Leu Gln His Gln Phe  
 260 265 270

Leu Lys Ile Ala Lys Pro Leu Ser Ser Leu Thr Pro Leu Ile Ala Ala  
 275 280 285

Ala Lys Glu Ala Thr Lys Asn Asn His  
 290 295

<210> 35

<211> 373

<212> PRT

<213> *Saccharomyces cerevisiae*

<400> 35

Asp Tyr Arg Pro Gly Gly Phe His Pro Ala Phe Lys Gly Glu Pro Tyr  
 1 5 10 15

Lys Asp Ala Arg Tyr Ile Leu Val Arg Lys Leu Gly Trp Gly His Phe  
 20 25 30

Ser Thr Val Trp Leu Ala Lys Asp Met Val Asn Asn Thr His Val Ala  
 35 40 45

Met Lys Ile Val Arg Gly Asp Lys Val Tyr Thr Glu Ala Ala Glu Asp  
 50 55 60

Glu Ile Lys Leu Leu Gln Arg Val Asn Asp Ala Asp Asn Thr Lys Glu  
 65 70 75 80

Asp Ser Met Gly Ala Asn His Ile Leu Lys Leu Leu Asp His Phe Asn  
 85 90 95

His Lys Gly Pro Asn Gly Val His Val Val Met Val Phe Glu Val Leu  
 100 105 110

Gly Glu Asn Leu Leu Ala Leu Ile Lys Lys Tyr Glu His Arg Gly Ile  
 115 120 125

Pro Leu Ile Tyr Val Lys Gln Ile Ser Lys Gln Leu Leu Leu Gly Leu  
 130 135 140

Asp Tyr Met His Arg Arg Cys Gly Ile Ile His Thr Asp Ile Lys Pro  
 145 150 155 160

Glu Asn Val Leu Met Glu Ile Val Asp Ser Pro Glu Asn Leu Ile Gln  
 165 170 175

Ile Lys Ile Ala Asp Leu Gly Asn Ala Cys Trp Tyr Asp Glu His Tyr  
 180 185 190  
 Thr Asn Ser Ile Gln Thr Arg Glu Tyr Arg Ser Pro Glu Val Leu Leu  
 195 200 205  
 Gly Ala Pro Trp Gly Cys Gly Ala Asp Ile Trp Ser Thr Ala Cys Leu  
 210 215 220  
 Ile Phe Glu Leu Ile Thr Gly Asp Phe Leu Phe Glu Pro Asp Glu Gly  
 225 230 235 240  
 His Ser Tyr Thr Lys Asp Asp Asp His Ile Ala Gln Ile Ile Glu Leu  
 245 250 255  
 Leu Gly Glu Leu Pro Ser Tyr Leu Leu Arg Asn Gly Lys Tyr Thr Arg  
 260 265 270  
 Thr Phe Phe Asn Ser Arg Gly Leu Leu Arg Asn Ile Ser Lys Leu Lys  
 275 280 285  
 Phe Trp Pro Leu Glu Asp Val Leu Thr Glu Lys Tyr Lys Phe Ser Lys  
 290 295 300  
 Asp Glu Ala Lys Glu Ile Ser Asp Phe Leu Ser Pro Met Leu Gln Leu  
 305 310 315 320  
 Asp Pro Arg Lys Arg Ala Asp Ala Gly Gly Leu Val Asn His Pro Trp  
 325 330 335  
 Leu Lys Asp Thr Leu Gly Met Glu Glu Ile Arg Val Pro Asp Arg Glu  
 340 345 350  
 Leu Tyr Gly Ser Gly Ser Asp Ile Pro Gly Trp Phe Glu Glu Val Arg  
 355 360 365  
 Asp His Lys Arg His  
 370

<210> 36  
 <211> 350  
 <212> PRT  
 <213> Sus scrofa

<400> 36  
 Gly Asn Ala Ala Ala Lys Lys Gly Ser Glu Gln Glu Ser Val Lys  
 1 5 10 15  
 Glu Phe Leu Ala Lys Ala Lys Glu Asp Phe Leu Lys Lys Trp Glu Asn  
 20 25 30  
 Pro Ala Gln Asn Thr Ala His Leu Asp Gln Phe Glu Arg Ile Lys Thr  
 35 40 45  
 Leu Gly Thr Gly Ser Phe Gly Arg Val Met Leu Val Lys His Lys Glu  
 50 55 60

Thr	Gly	Asn	His	Phe	Ala	Met	Lys	Ile	Leu	Asp	Lys	Gln	Lys	Val	Val	65	70	75	80
Lys	Leu	Lys	Gln	Ile	Glu	His	Thr	Leu	Asn	Glu	Lys	Arg	Ile	Leu	Gln	85	90	95	
Ala	Val	Asn	Phe	Pro	Phe	Leu	Val	Lys	Leu	Glu	Tyr	Ser	Phe	Lys	Asp	100	105	110	
Asn	Ser	Asn	Leu	Tyr	Met	Val	Met	Glu	Tyr	Val	Pro	Gly	Gly	Glu	Met	115	120	125	
Phe	Ser	His	Leu	Arg	Arg	Ile	Gly	Arg	Phe	Ser	Glu	Pro	His	Ala	Arg	130	135	140	
Phe	Tyr	Ala	Ala	Gln	Ile	Val	Leu	Thr	Phe	Glu	Tyr	Leu	His	Ser	Leu	145	150	155	160
Asp	Leu	Ile	Tyr	Arg	Asp	Leu	Lys	Pro	Glu	Asn	Leu	Leu	Ile	Asp	Gln	165	170	175	
Gln	Gly	Tyr	Ile	Gln	Val	Thr	Asp	Phe	Gly	Phe	Ala	Lys	Arg	Val	Lys	180	185	190	
Gly	Arg	Thr	Trp	Thr	Leu	Cys	Gly	Thr	Pro	Glu	Tyr	Leu	Ala	Pro	Glu	195	200	205	
Ile	Ile	Leu	Ser	Lys	Gly	Tyr	Asn	Lys	Ala	Val	Asp	Trp	Trp	Ala	Leu	210	215	220	
Gly	Val	Leu	Ile	Tyr	Glu	Met	Ala	Ala	Gly	Tyr	Pro	Pro	Phe	Phe	Ala	225	230	235	240
Asp	Gln	Pro	Ile	Gln	Ile	Tyr	Glu	Lys	Ile	Val	Ser	Gly	Lys	Val	Arg	245	250	255	
Phe	Pro	Ser	His	Phe	Ser	Ser	Asp	Leu	Lys	Asp	Leu	Leu	Arg	Asn	Leu	260	265	270	
Leu	Gln	Val	Asp	Leu	Thr	Lys	Arg	Phe	Gly	Asn	Leu	Lys	Asp	Gly	Val	275	280	285	
Asn	Asp	Ile	Lys	Asn	His	Lys	Trp	Phe	Ala	Thr	Thr	Asp	Trp	Ile	Ala	290	295	300	
Ile	Tyr	Gln	Arg	Lys	Val	Glu	Ala	Pro	Phe	Ile	Pro	Lys	Phe	Lys	Gly	305	310	315	320
Pro	Gly	Asp	Thr	Ser	Asn	Phe	Asp	Asp	Tyr	Glu	Glu	Glu	Glu	Ile	Arg	325	330	335	
Val	Ser	Ile	Asn	Glu	Lys	Cys	Gly	Lys	Glu	Phe	Ser	Glu	Phe			340	345	350	

<210> 37  
 <211> 342  
 <212> PRT  
 <213> Rattus norvegicus

<400> 37  
 Glu Asp Pro Ser Leu Asp Arg Pro Phe Ile Ser Glu Gly Thr Thr Leu  
   1                  5                  10                  15  
 Lys Asp Leu Ile Tyr Asp Met Thr Thr Ser Gly Ser Gly Ser Gly Leu  
           20                  25                  30  
 Pro Leu Leu Val Gln Arg Thr Ile Ala Arg Thr Ile Val Leu Gln Glu  
           35                  40                  45  
 Ser Ile Gly Lys Gly Arg Phe Gly Glu Val Trp Arg Gly Lys Trp Arg  
   50                  55                  60  
 Gly Glu Glu Val Ala Val Lys Ile Phe Ser Ser Arg Glu Glu Arg Ser  
   65                  70                  75                  80  
 Trp Phe Arg Glu Ala Glu Ile Tyr Gln Thr Val Met Leu Arg His Glu  
           85                  90                  95  
 Asn Ile Leu Gly Phe Ile Ala Ala Asp Asn Lys Asp Asn Gly Thr Trp  
           100                  105                  110  
 Thr Gln Leu Trp Leu Val Ser Asp Tyr His Glu His Gly Ser Leu Phe  
   115                  120                  125  
 Asp Tyr Leu Asn Arg Tyr Thr Val Thr Val Glu Gly Met Ile Lys Leu  
   130                  135                  140  
 Ala Leu Ser Thr Ala Ser Gly Leu Ala His Leu His Met Glu Ile Val  
   145                  150                  155                  160  
 Gly Thr Gln Gly Lys Pro Ala Ile Ala His Arg Asp Leu Lys Ser Lys  
           165                  170                  175  
 Asn Ile Leu Val Lys Lys Asn Gly Thr Cys Cys Ile Ala Asp Leu Gly  
           180                  185                  190  
 Leu Ala Val Arg His Asp Ser Ala Thr Asp Thr Ile Asp Ile Ala Pro  
   195                  200                  205  
 Asn His Arg Val Gly Thr Lys Arg Tyr Met Ala Pro Glu Val Leu Asp  
   210                  215                  220  
 Asp Ser Ile Asn Met Lys His Phe Glu Ser Phe Lys Arg Ala Asp Ile  
   225                  230                  235                  240  
 Tyr Ala Met Gly Leu Val Phe Trp Glu Ile Ala Arg Arg Cys Ser Ile  
           245                  250                  255  
 Gly Gly Ile His Glu Asp Tyr Gln Leu Pro Tyr Tyr Asp Leu Val Pro  
           260                  265                  270

Ser Asp Pro Ser Val Glu Glu Met Arg Lys Val Val Cys Glu Gln Lys  
 275 280 285

Leu Arg Pro Asn Ile Pro Asn Arg Trp Gln Ser Cys Glu Ala Leu Arg  
 290 295 300

Val Met Ala Lys Ile Met Arg Glu Cys Trp Tyr Ala Asn Gly Ala Ala  
 305 310 315 320

Arg Leu Thr Ala Leu Arg Ile Lys Lys Thr Leu Ser Gln Leu Ser Gln  
 325 330 335

Gln Glu Gly Ile Lys Met  
 340

<210> 38

<211> 317

<212> PRT

<213> Homo sapiens

<400> 38

Met Glu Leu Arg Val Gly Asn Arg Tyr Arg Leu Gly Arg Lys Ile Gly  
 1 5 10 15

Ser Gly Ser Phe Gly Asp Ile Tyr Leu Gly Thr Asp Ile Ala Ala Gly  
 20 25 30

Glu Glu Val Ala Ile Lys Leu Glu Cys Val Lys Thr Lys His Pro Gln  
 35 40 45

Leu His Ile Glu Ser Lys Ile Tyr Lys Met Met Gln Gly Gly Val Gly  
 50 55 60

Ile Pro Thr Ile Arg Trp Cys Gly Ala Glu Gly Asp Tyr Asn Val Met  
 65 70 75 80

Val Met Glu Leu Leu Gly Pro Ser Leu Glu Asp Leu Phe Asn Phe Cys  
 85 90 95

Ser Arg Lys Phe Ser Leu Lys Thr Val Leu Leu Leu Ala Asp Gln Met  
 100 105 110

Ile Ser Arg Ile Glu Tyr Ile His Ser Lys Asn Phe Ile His Arg Asp  
 115 120 125

Val Lys Pro Asp Asn Phe Leu Met Gly Leu Gly Lys Lys Gly Asn Leu  
 130 135 140

Val Tyr Ile Ile Asp Phe Gly Leu Ala Lys Lys Tyr Arg Asp Ala Arg  
 145 150 155 160

Thr His Gln His Ile Pro Tyr Arg Glu Asn Lys Asn Leu Thr Gly Thr  
 165 170 175

Ala Arg Tyr Ala Ser Ile Asn Thr His Leu Gly Ile Glu Gln Ser Arg  
 180 185 190

Arg Asp Asp Leu Glu Ser Leu Gly Tyr Val Leu Met Tyr Phe Asn Leu  
 195 200 205

Gly Ser Leu Pro Trp Gln Gly Leu Lys Ala Ala Thr Lys Arg Gln Lys  
 210 215 220

Tyr Glu Arg Ile Ser Glu Lys Lys Met Ser Thr Pro Ile Glu Val Leu  
 225 230 235 240

Cys Lys Gly Tyr Pro Ser Glu Phe Ala Thr Tyr Leu Asn Phe Cys Arg  
 245 250 255

Ser Leu Arg Phe Asp Asp Lys Pro Asp Tyr Ser Tyr Leu Arg Gln Leu  
 260 265 270

Phe Arg Asn Leu Phe His Arg Gln Gly Phe Ser Tyr Asp Tyr Val Phe  
 275 280 285

Asp Trp Asn Met Leu Lys Phe Gly Ala Ser Arg Ala Ala Asp Asp Ala  
 290 295 300

Glu Arg Glu Arg Arg Asp Arg Glu Glu Arg Leu Arg His  
 305 310 315

<210> 39

<211> 303

<212> PRT

<213> Homo sapiens

<400> 39

Ser Lys His Ala Asp Gly Leu Cys His Arg Leu Thr Thr Val Cys Pro  
 1 5 10 15

Thr Ser Lys Pro Gln Thr Gln Gly Leu Ala Lys Asp Ala Trp Glu Ile  
 20 25 30

Pro Arg Glu Ser Leu Arg Leu Glu Val Lys Leu Gly Gln Gly Cys Phe  
 35 40 45

Gly Glu Val Trp Met Gly Thr Trp Asn Gly Thr Thr Arg Val Ala Ile  
 50 55 60

Lys Thr Leu Lys Pro Gly Thr Met Ser Pro Glu Ala Phe Leu Gln Glu  
 65 70 75 80

Ala Gln Val Met Lys Lys Leu Arg His Glu Lys Leu Val Gln Leu Tyr  
 85 90 95

Ala Val Val Ser Glu Glu Pro Ile Tyr Ile Val Thr Glu Tyr Met Ser  
 100 105 110

Lys Gly Ser Leu Leu Asp Phe Leu Lys Gly Glu Thr Gly Lys Tyr Leu  
 115 120 125

Arg Leu Pro Gln Leu Val Asp Met Ala Ala Gln Ile Ala Ser Gly Met  
 130 135 140

Ala Tyr Val Glu Arg Met Asn Tyr Val His Arg Asp Leu Arg Ala Ala  
145 150 155 160

Asn Ile Leu Val Gly Glu Asn Leu Val Cys Lys Val Ala Asp Phe Gly  
165 170 175

Leu Ala Arg Leu Ile Glu Asp Asn Glu Tyr Thr Ala Arg Gln Gly Ala  
180 185 190

Lys Phe Pro Ile Lys Trp Thr Ala Pro Glu Ala Ala Leu Tyr Gly Arg  
195 200 205

Phe Thr Ile Lys Ser Asp Val Trp Ser Phe Gly Ile Leu Leu Thr Glu  
210 215 220

Leu Thr Thr Lys Gly Arg Val Pro Tyr Pro Gly Met Val Asn Arg Glu  
225 230 235 240

Val Leu Asp Gln Val Glu Arg Gly Tyr Arg Met Pro Cys Pro Pro Glu  
245 250 255

Cys Pro Glu Ser Leu His Asp Leu Met Cys Gln Cys Trp Arg Lys Glu  
260 265 270

Pro Glu Glu Arg Pro Thr Phe Glu Tyr Leu Gln Ala Phe Leu Glu Asp  
275 280 285

Tyr Phe Thr Ser Thr Glu Pro Gln Tyr Gln Pro Gly Glu Asn Leu  
290 295 300

<210> 40

<211> 300

<212> PRT

<213> Homo sapiens

<400> 40

Lys Lys Gly Asn Asp Gly Leu Cys Gln Lys Leu Ser Val Pro Cys Met  
1 5 10 15

Ser Ser Lys Pro Gln Lys Pro Trp Glu Lys Asp Ala Trp Glu Ile Pro  
20 25 30

Arg Glu Ser Leu Lys Leu Glu Lys Lys Leu Gly Ala Gly Gln Phe Gly  
35 40 45

Glu Val Trp Met Ala Thr Tyr Asn Lys His Thr Lys Val Ala Val Lys  
50 55 60

Thr Met Lys Pro Gly Ser Met Ser Val Glu Ala Phe Leu Ala Glu Ala  
65 70 75 80

Asn Val Met Lys Thr Leu Gln His Asp Lys Leu Val Lys Leu His Ala  
85 90 95

Val Val Thr Lys Glu Pro Ile Tyr Ile Ile Thr Glu Phe Met Ala Lys  
100 105 110



Gly Ser Leu Leu Asp Phe Leu Lys Ser Asp Glu Gly Ser Lys Gln Pro  
 115 120 125  
 Leu Pro Lys Leu Ile Asp Phe Ser Ala Gln Ile Ala Glu Gly Met Ala  
 130 135 140  
 Phe Ile Glu Gln Arg Asn Tyr Ile His Arg Asp Leu Arg Ala Ala Asn  
 145 150 155 160  
 Ile Leu Val Ser Ala Ser Leu Val Cys Lys Ile Ala Asp Phe Gly Leu  
 165 170 175  
 Ala Arg Val Ile Glu Asp Asn Glu Tyr Thr Ala Arg Glu Gly Ala Lys  
 180 185 190  
 Phe Pro Ile Lys Trp Thr Ala Pro Glu Ala Ile Asn Phe Gly Ser Phe  
 195 200 205  
 Thr Ile Lys Ser Asp Val Trp Ser Phe Gly Ile Leu Leu Met Glu Ile  
 210 215 220  
 Val Thr Tyr Gly Arg Ile Pro Tyr Pro Gly Met Ser Asn Pro Glu Val  
 225 230 235 240  
 Ile Arg Ala Leu Glu Arg Gly Tyr Arg Met Pro Arg Pro Glu Asn Cys  
 245 250 255  
 Pro Glu Glu Leu Tyr Asn Ile Met Met Arg Cys Trp Lys Asn Arg Pro  
 260 265 270  
 Glu Glu Arg Pro Thr Phe Glu Tyr Ile Gln Ser Val Leu Asp Asp Phe  
 275 280 285  
 Tyr Thr Ala Thr Glu Ser Gln Tyr Gln Gln Gln Pro  
 290 295 300

<210> 41  
 <211> 312  
 <212> PRT  
 <213> Homo sapiens

<400> 41  
 Thr Lys Thr Ser Asp Gly Leu Cys Val Lys Leu Gly Lys Pro Cys Leu  
 1 5 10 15  
 Lys Ile Gln Val Pro Ala Pro Phe Asp Leu Ser Tyr Lys Thr Val Asp  
 20 25 30  
 Gln Trp Glu Ile Asp Arg Asn Ser Ile Gln Leu Leu Lys Arg Leu Gly  
 35 40 45  
 Ser Gly Gln Phe Gly Glu Val Trp Glu Gly Leu Trp Asn Asn Thr Thr  
 50 55 60  
 Pro Val Ala Val Lys Thr Leu Lys Pro Gly Ser Met Asp Pro Asn Asp  
 65 70 75 80

Phe	Leu	Arg	Glu	Ala	Gln	Ile	Met	Lys	Asn	Leu	Arg	His	Pro	Lys	Leu	
				85							90			95		
Ile	Gln	Leu	Tyr	Ala	Val	Cys	Thr	Leu	Glu	Asp	Pro	Ile	Tyr	Ile	Ile	
				100							105			110		
Thr	Glu	Leu	Met	Arg	His	Gly	Ser	Leu	Gln	Glu	Tyr	Leu	Gln	Asn	Asp	
				115							120			125		
Thr	Gly	Ser	Lys	Ile	His	Leu	Thr	Gln	Gln	Val	Asp	Met	Ala	Ala	Gln	
				130							135			140		
Val	Ala	Ser	Gly	Met	Ala	Tyr	Leu	Glu	Ser	Arg	Asn	Tyr	Ile	His	Arg	
145				150							155			160		
Asp	Leu	Ala	Ala	Arg	Asn	Val	Leu	Val	Gly	Glu	His	Asn	Ile	Tyr	Lys	
				165							170			175		
Val	Ala	Asp	Phe	Gly	Leu	Ala	Arg	Val	Phe	Lys	Val	Asp	Asn	Glu	Asp	
				180							185			190		
Ile	Tyr	Glu	Ser	Arg	His	Glu	Ile	Lys	Leu	Pro	Val	Lys	Trp	Thr	Ala	
				195							200			205		
Pro	Glu	Ala	Ile	Arg	Ser	Asn	Lys	Phe	Ser	Ile	Lys	Ser	Asp	Val	Trp	
				210							215			220		
Ser	Phe	Gly	Ile	Leu	Leu	Tyr	Glu	Ile	Ile	Thr	Tyr	Gly	Lys	Met	Pro	
225				230							235			240		
Tyr	Ser	Gly	Met	Thr	Gly	Ala	Gln	Val	Ile	Gln	Met	Leu	Ala	Gln	Asn	
				245							250			255		
Tyr	Arg	Leu	Pro	Gln	Pro	Ser	Asn	Cys	Pro	Gln	Gln	Phe	Tyr	Asn	Ile	
				260							265			270		
Met	Leu	Glu	Cys	Trp	Asn	Ala	Glu	Pro	Lys	Glu	Arg	Pro	Thr	Phe	Glu	
				275							280			285		
Thr	Leu	Arg	Trp	Lys	Leu	Glu	Asp	Tyr	Phe	Glu	Thr	Asp	Ser	Ser	Tyr	
				290							295			300		
Ser	Asp	Ala	Asn	Asn	Phe	Ile	Arg									
305				310												

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<210> 42
<211> 294
<212> PRT
<213> Homo sapiens
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<400> 42
Thr Ser Asp Ala Asp Gly Leu Cys Thr Arg Leu Ile Lys Pro Lys Val
  1                               10                      15
Met Glu Gly Thr Val Ala Ala Gln Asp Glu Phe Tyr Arg Ser Gly Trp
          20                      25                      30

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Ala Leu Asn Met Lys Glu Leu Lys Leu Leu Gln Thr Ile Gly Lys Gly  
           35                          40                          45  
 Glu Phe Gly Asp Val Met Leu Gly Asp Tyr Arg Gly Asn Lys Val Ala  
           50                          55                          60  
 Val Lys Cys Ile Lys Asn Asp Ala Thr Ala Gln Ala Phe Leu Ala Glu  
           65                          70                          75                          80  
 Ala Ser Val Met Thr Gln Leu Arg His Ser Asn Leu Val Gln Leu Leu  
                           85                          90                          95  
 Gly Val Ile Val Glu Glu Lys Gly Gly Leu Tyr Ile Val Thr Glu Tyr  
                           100                          105                          110  
 Met Ala Lys Gly Ser Leu Val Asp Tyr Leu Arg Ser Arg Gly Arg Ser  
           115                          120                          125  
 Val Leu Gly Gly Asp Cys Leu Leu Lys Phe Ser Leu Asp Val Cys Glu  
           130                          135                          140  
 Ala Met Glu Tyr Leu Glu Gly Asn Asn Phe Val His Arg Asp Leu Ala  
           145                          150                          155                          160  
 Ala Arg Asn Val Leu Val Ser Glu Asp Asn Val Ala Lys Val Ser Asp  
                           165                          170                          175  
 Phe Gly Leu Thr Lys Glu Ala Ser Ser Thr Gln Asp Thr Gly Lys Leu  
                           180                          185                          190  
 Pro Val Lys Trp Thr Ala Pro Glu Ala Leu Arg Glu Lys Lys Phe Ser  
           195                          200                          205  
 Thr Lys Ser Asp Val Trp Ser Phe Gly Ile Leu Leu Trp Glu Ile Tyr  
           210                          215                          220  
 Ser Phe Gly Arg Val Pro Tyr Pro Arg Ile Pro Leu Lys Asp Val Val  
           225                          230                          235                          240  
 Pro Arg Val Glu Lys Gly Tyr Lys Met Asp Ala Pro Asp Gly Cys Pro  
                           245                          250                          255  
 Pro Ala Val Tyr Glu Val Met Lys Asn Cys Trp His Leu Asp Ala Ala  
                           260                          265                          270  
 Met Arg Pro Ser Phe Leu Gln Leu Arg Glu Gln Leu Glu His Ile Lys  
           275                          280                          285  
 Thr His Glu Leu His Leu  
           290

&lt;210&gt; 43

&lt;211&gt; 340

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 43

Glu	Arg	Ala	Asp	Ser	Glu	Tyr	Thr	Asp	Lys	Leu	Gln	His	Tyr	Thr	Ser
1				5					10					15	
Gly	His	Met	Thr	Pro	Gly	Met	Lys	Ile	Tyr	Ile	Asp	Pro	Phe	Thr	Tyr
			20					25					30		
Glu	Asp	Pro	Asn	Glu	Ala	Val	Arg	Glu	Phe	Ala	Lys	Glu	Ile	Asp	Ile
		35					40					45			
Ser	Cys	Val	Lys	Ile	Glu	Gln	Val	Ile	Gly	Ala	Gly	Glu	Phe	Gly	Glu
	50					55					60				
Val	Cys	Ser	Gly	His	Leu	Lys	Leu	Pro	Gly	Lys	Arg	Glu	Ile	Phe	Val
65					70					75					80
Ala	Ile	Lys	Thr	Leu	Lys	Ser	Gly	Tyr	Thr	Glu	Lys	Gln	Arg	Arg	Asp
				85					90					95	
Phe	Leu	Ser	Glu	Ala	Ser	Ile	Met	Gly	Gln	Phe	Asp	His	Pro	Asn	Val
			100					105					110		
Ile	His	Leu	Glu	Gly	Val	Val	Thr	Lys	Ser	Thr	Pro	Val	Met	Ile	Ile
		115					120					125			
Thr	Glu	Phe	Met	Glu	Asn	Gly	Ser	Leu	Asp	Ser	Phe	Leu	Arg	Gln	Asn
	130					135					140				
Asp	Gly	Gln	Phe	Thr	Val	Ile	Gln	Leu	Val	Gly	Met	Leu	Arg	Gly	Ile
145					150					155					160
Ala	Ala	Gly	Met	Lys	Tyr	Leu	Ala	Asp	Met	Asn	Tyr	Val	His	Arg	Asp
				165					170					175	
Leu	Ala	Ala	Arg	Asn	Ile	Leu	Val	Asn	Ser	Asn	Leu	Val	Cys	Lys	Val
			180					185					190		
Ser	Asp	Phe	Gly	Leu	Ser	Arg	Phe	Leu	Glu	Asp	Asp	Thr	Ser	Asp	Pro
		195					200					205			
Thr	Tyr	Thr	Ser	Ala	Leu	Gly	Gly	Lys	Ile	Pro	Ile	Arg	Trp	Thr	Ala
	210					215					220				
Pro	Glu	Ala	Ile	Gln	Tyr	Arg	Lys	Phe	Thr	Ser	Ala	Ser	Asp	Val	Trp
225					230					235				240	
Ser	Tyr	Gly	Ile	Val	Met	Trp	Glu	Val	Met	Ser	Tyr	Gly	Glu	Arg	Pro
				245					250					255	
Tyr	Trp	Asp	Met	Thr	Asn	Gln	Asp	Val	Ile	Asn	Ala	Ile	Glu	Gln	Asp
			260					265					270		
Tyr	Arg	Leu	Pro	Pro	Pro	Met	Asp	Cys	Pro	Ser	Ala	Leu	His	Gln	Leu
		275					280					285			
Met	Leu	Asp	Cys	Trp	Gln	Lys	Asp	Arg	Asn	His	Arg	Pro	Lys	Phe	Gly
	290					295					300				

Gln Ile Val Asn Thr Leu Asp Lys Met Ile Arg Asn Pro Asn Ser Leu  
305 310 315 320

Lys Ala Met Ala Pro Leu Ser Ser Gly Ile Asn Leu Pro Leu Leu Asp  
325 330 335

Arg Thr Ile Pro  
340

<210> 44

<211> 429

<212> PRT

<213> Homo sapiens

<400> 44

Ile Ile Leu Arg Thr Val Lys Arg Ala Asn Gly Gly Glu Leu Lys Thr  
1 5 10 15

Gly Tyr Leu Ser Ile Val Met Asp Pro Asp Glu Leu Pro Leu Asp Glu  
20 25 30

His Cys Glu Arg Leu Pro Tyr Asp Ala Ser Lys Trp Glu Phe Pro Arg  
35 40 45

Asp Arg Leu Lys Leu Gly Lys Pro Leu Gly Arg Gly Ala Phe Gly Gln  
50 55 60

Val Ile Glu Ala Asp Ala Phe Gly Ile Asp Lys Thr Ala Thr Cys Arg  
65 70 75 80

Thr Val Ala Val Lys Met Leu Lys Glu Gly Ala Thr His Ser Glu His  
85 90 95

Arg Ala Leu Met Ser Glu Leu Lys Ile Leu Ile His Ile Gly His His  
100 105 110

Leu Asn Val Val Asn Leu Leu Gly Ala Cys Thr Lys Pro Gly Gly Pro  
115 120 125

Leu Met Val Ile Val Glu Phe Cys Lys Phe Gly Asn Leu Ser Thr Tyr  
130 135 140

Leu Arg Ser Lys Arg Asn Glu Phe Val Pro Tyr Lys Thr Lys Gly Ala  
145 150 155 160

Arg Phe Arg Gln Gly Lys Asp Tyr Val Gly Ala Ile Pro Val Asp Leu  
165 170 175

Lys Arg Arg Leu Asp Ser Ile Thr Ser Ser Gln Ser Ser Ala Ser Ser  
180 185 190

Gly Phe Val Glu Glu Lys Ser Leu Ser Asp Val Glu Glu Glu Glu Ala  
195 200 205

Pro Glu Asp Leu Tyr Lys Asp Phe Leu Thr Leu Glu His Leu Ile Cys  
210 215 220

Tyr Ser Phe Gln Val Ala Lys Gly Met Glu Phe Leu Ala Ser Arg Lys  
225 230 235 240

Cys Ile His Arg Asp Leu Ala Ala Arg Asn Ile Leu Leu Ser Glu Lys  
245 250 255

Asn Val Val Lys Ile Cys Asp Phe Gly Leu Ala Arg Asp Ile Tyr Lys  
260 265 270

Asp Pro Asp Tyr Val Arg Lys Gly Asp Ala Arg Leu Pro Leu Lys Trp  
275 280 285

Met Ala Pro Glu Thr Ile Phe Asp Arg Val Tyr Thr Ile Gln Ser Asp  
290 295 300

Val Trp Ser Phe Gly Val Leu Leu Trp Glu Ile Phe Ser Leu Gly Ala  
305 310 315 320

Ser Pro Tyr Pro Gly Val Lys Ile Asp Glu Glu Phe Cys Arg Arg Leu  
325 330 335

Lys Glu Gly Thr Arg Met Arg Ala Pro Asp Tyr Thr Thr Pro Glu Met  
340 345 350

Tyr Gln Thr Met Leu Asp Cys Trp His Gly Glu Pro Ser Gln Arg Pro  
355 360 365

Thr Phe Ser Glu Leu Val Glu His Leu Gly Asn Leu Leu Gln Ala Asn  
370 375 380

Ala Gln Gln Asp Gly Lys Asp Tyr Ile Val Leu Pro Ile Ser Glu Thr  
385 390 395 400

Leu Ser Met Glu Glu Asp Ser Gly Leu Ser Leu Pro Thr Ser Pro Val  
405 410 415

Ser Cys Met Glu Glu Glu Glu Val Cys Asp Pro Lys Phe  
420 425

<210> 45

<211> 379

<212> PRT

<213> Homo sapiens

<400> 45

Thr Val Ser Ala Asp Ser Ser Ala Ser Met Asn Ser Gly Val Leu Leu  
1 5 10 15

Val Arg Pro Ser Arg Leu Ser Ser Ser Gly Thr Pro Met Leu Ala Gly  
20 25 30

Val Ser Glu Tyr Glu Leu Pro Glu Asp Pro Arg Trp Glu Leu Pro Arg  
35 40 45

Asp Arg Leu Val Leu Gly Lys Pro Leu Gly Glu Gly Cys Phe Gly Gln  
50 55 60

Val	Val	Leu	Ala	Glu	Ala	Ile	Gly	Leu	Asp	Lys	Asp	Lys	Pro	Asn	Arg	
65					70					75					80	
Val	Thr	Lys	Val	Ala	Val	Lys	Met	Leu	Lys	Ser	Asp	Ala	Thr	Glu	Lys	
			85						90					95		
Asp	Leu	Ser	Asp	Leu	Ile	Ser	Glu	Met	Glu	Met	Met	Lys	Met	Ile	Gly	
			100					105					110			
Lys	His	Lys	Asn	Ile	Ile	Asn	Leu	Leu	Gly	Ala	Cys	Thr	Gln	Asp	Gly	
		115					120					125				
Pro	Leu	Tyr	Val	Ile	Val	Glu	Tyr	Ala	Ser	Lys	Gly	Asn	Leu	Arg	Glu	
	130					135					140					
Tyr	Leu	Gln	Ala	Arg	Arg	Pro	Pro	Gly	Leu	Glu	Tyr	Cys	Tyr	Asn	Pro	
145					150					155					160	
Ser	His	Asn	Pro	Glu	Glu	Gln	Leu	Ser	Ser	Lys	Asp	Leu	Val	Ser	Cys	
				165					170					175		
Ala	Tyr	Gln	Val	Ala	Arg	Gly	Met	Glu	Tyr	Leu	Ala	Ser	Lys	Lys	Cys	
			180					185					190			
Ile	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	Val	Leu	Val	Thr	Glu	Asp	Asn	
		195					200					205				
Val	Met	Lys	Ile	Ala	Asp	Phe	Gly	Leu	Ala	Arg	Asp	Ile	His	His	Ile	
	210					215					220					
Asp	Tyr	Tyr	Lys	Lys	Thr	Thr	Asn	Gly	Arg	Leu	Pro	Val	Lys	Trp	Met	
225					230					235					240	
Ala	Pro	Glu	Ala	Leu	Phe	Asp	Arg	Ile	Tyr	Thr	His	Gln	Ser	Asp	Val	
				245					250					255		
Trp	Ser	Phe	Gly	Val	Leu	Leu	Trp	Glu	Ile	Phe	Thr	Leu	Gly	Gly	Ser	
			260					265					270			
Pro	Tyr	Pro	Gly	Val	Pro	Val	Glu	Glu	Leu	Phe	Lys	Leu	Leu	Lys	Glu	
		275					280					285				
Gly	His	Arg	Met	Asp	Lys	Pro	Ser	Asn	Cys	Thr	Asn	Glu	Leu	Tyr	Met	
	290					295					300					
Met	Met	Arg	Asp	Cys	Trp	His	Ala	Val	Pro	Ser	Gln	Arg	Pro	Thr	Phe	
305					310					315					320	
Lys	Gln	Leu	Val	Glu	Asp	Leu	Asp	Arg	Ile	Val	Ala	Leu	Thr	Ser	Asn	
				325					330					335		
Gln	Glu	Tyr	Leu	Asp	Leu	Ser	Met	Pro	Leu	Asp	Gln	Tyr	Ser	Pro	Ser	
			340					345					350			
Phe	Pro	Asp	Thr	Arg	Ser	Ser	Thr	Cys	Ser	Ser	Gly	Glu	Asp	Ser	Val	
		355					360					365				

Phe Ser His Glu Pro Leu Pro Glu Glu Pro Cys  
 370 375

<210> 46  
 <211> 327  
 <212> PRT  
 <213> Homo sapiens

<400> 46  
 Met Glu Leu Arg Val Gly Asn Arg Tyr Arg Leu Gly Arg Lys Ile Gly  
 1 5 10 15  
 Ser Gly Ser Phe Gly Asp Ile Tyr Leu Gly Thr Asp Ile Ala Ala Gly  
 20 25 30  
 Glu Glu Val Ala Ile Lys Leu Glu Cys Val Lys Thr Lys His Pro Gln  
 35 40 45  
 Leu His Ile Glu Ser Lys Ile Tyr Lys Met Met Gln Gly Gly Val Gly  
 50 55 60  
 Ile Pro Thr Ile Arg Trp Cys Gly Ala Glu Gly Asp Tyr Asn Val Met  
 65 70 75 80  
 Val Met Glu Leu Leu Gly Pro Ser Leu Glu Asp Leu Phe Asn Phe Cys  
 85 90 95  
 Ser Arg Lys Phe Ser Leu Lys Thr Val Leu Leu Leu Ala Asp Gln Met  
 100 105 110  
 Ile Ser Arg Ile Glu Tyr Ile His Ser Lys Asn Phe Ile His Arg Asp  
 115 120 125  
 Val Lys Pro Asp Asn Phe Leu Met Gly Leu Gly Lys Lys Gly Asn Leu  
 130 135 140  
 Val Tyr Ile Ile Asp Phe Gly Leu Ala Lys Lys Tyr Arg Asp Ala Arg  
 145 150 155 160  
 Thr His Gln His Ile Pro Tyr Arg Glu Asn Lys Asn Leu Thr Gly Thr  
 165 170 175  
 Ala Arg Tyr Ala Ser Ile Asn Thr His Leu Gly Ile Glu Gln Ser Arg  
 180 185 190  
 Arg Asp Asp Leu Glu Ser Leu Gly Tyr Val Leu Met Tyr Phe Asn Leu  
 195 200 205  
 Gly Ser Leu Pro Trp Gln Gly Leu Lys Ala Ala Thr Lys Arg Gln Lys  
 210 215 220  
 Tyr Glu Arg Ile Ser Glu Lys Lys Met Ser Thr Pro Ile Glu Val Leu  
 225 230 235 240  
 Cys Lys Gly Tyr Pro Ser Glu Phe Ala Thr Tyr Leu Asn Phe Cys Arg  
 245 250 255



Ser Leu Arg Phe Asp Asp Lys Pro Asp Tyr Ser Tyr Leu Arg Gln Leu  
 260 265 270

Phe Arg Asn Leu Phe His Arg Gln Gly Phe Ser Tyr Asp Tyr Val Phe  
 275 280 285

Asp Trp Asn Met Leu Lys Phe Gly Ala Ser Arg Ala Ala Asp Asp Ala  
 290 295 300

Glu Arg Glu Arg Arg Asp Arg Glu Glu Arg Leu Arg His Ser Arg Asn  
 305 310 315 320

Pro Ala Thr Arg Gly Leu Pro  
 325

<210> 47

<211> 396

<212> PRT

<213> Homo sapiens

<400> 47

Leu Asp Val Lys Ile Ala Phe Cys Gln Gly Phe Asp Lys Gln Val Asp  
 1 5 10 15

Val Ser Tyr Ile Ala Lys His Tyr Asn Met Ser Lys Ser Lys Val Asp  
 20 25 30

Asn Gln Phe Tyr Ser Val Glu Val Gly Asp Ser Thr Phe Thr Val Leu  
 35 40 45

Lys Arg Tyr Gln Asn Leu Lys Pro Ile Gly Ser Gly Ala Gln Gly Ile  
 50 55 60

Val Cys Ala Ala Tyr Asp Ala Val Leu Asp Arg Asn Val Ala Ile Lys  
 65 70 75 80

Lys Leu Ser Arg Pro Phe Gln Asn Gln Thr His Ala Lys Arg Ala Tyr  
 85 90 95

Arg Glu Leu Val Leu Met Lys Cys Val Asn His Lys Asn Ile Ile Ser  
 100 105 110

Leu Leu Asn Val Phe Thr Pro Gln Lys Thr Leu Glu Glu Phe Gln Asp  
 115 120 125

Val Tyr Leu Val Met Glu Leu Met Asp Ala Asn Leu Cys Gln Val Ile  
 130 135 140

Gln Met Glu Leu Asp His Glu Arg Met Ser Tyr Leu Leu Tyr Gln Met  
 145 150 155 160

Leu Cys Gly Ile Lys His Leu His Ser Ala Gly Ile Ile His Arg Asp  
 165 170 175

Leu Lys Pro Ser Asn Ile Val Val Lys Ser Asp Cys Thr Leu Lys Ile  
 180 185 190

Leu Asp Phe Gly Leu Ala Arg Thr Ala Gly Thr Ser Phe Met Met Thr  
 195 200 205  
 Pro Tyr Val Val Thr Arg Tyr Tyr Arg Ala Pro Glu Val Ile Leu Gly  
 210 215 220  
 Met Gly Tyr Lys Glu Asn Val Asp Ile Trp Ser Val Gly Cys Ile Met  
 225 230 235 240  
 Gly Glu Met Val Arg His Lys Ile Leu Phe Pro Gly Arg Asp Tyr Ile  
 245 250 255  
 Asp Gln Trp Asn Lys Val Ile Glu Gln Leu Gly Thr Pro Cys Pro Glu  
 260 265 270  
 Phe Met Lys Lys Leu Gln Pro Thr Val Arg Asn Tyr Val Glu Asn Arg  
 275 280 285  
 Pro Lys Tyr Ala Gly Leu Thr Phe Pro Lys Leu Phe Pro Asp Ser Leu  
 290 295 300  
 Phe Pro Ala Asp Ser Glu His Asn Lys Leu Lys Ala Ser Gln Ala Arg  
 305 310 315 320  
 Asp Leu Leu Ser Lys Met Leu Val Ile Asp Pro Ala Lys Arg Ile Ser  
 325 330 335  
 Val Asp Asp Ala Leu Gln His Pro Tyr Ile Asn Val Trp Tyr Asp Pro  
 340 345 350  
 Ala Glu Val Glu Ala Pro Pro Pro Gln Ile Tyr Asp Lys Gln Leu Asp  
 355 360 365  
 Glu Arg Glu His Thr Ile Glu Glu Trp Lys Glu Leu Ile Tyr Lys Glu  
 370 375 380  
 Val Met Asn Ser Glu Glu Lys Thr Lys Asn Gly Val  
 385 390 395

&lt;210&gt; 48

&lt;211&gt; 326

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 48

Ser Pro Ile Ser Pro Thr Glu Asn Asn Thr Thr Pro Pro Asp Ala Leu  
 1 5 10 15  
 Thr Arg Asn Thr Glu Lys Gln Lys Lys Lys Pro Lys Met Ser Asp Glu  
 20 25 30  
 Glu Ile Leu Glu Lys Leu Arg Ser Ile Val Ser Val Gly Asp Pro Lys  
 35 40 45  
 Lys Lys Tyr Thr Arg Phe Glu Lys Ile Gly Gln Gly Ala Ser Gly Thr  
 50 55 60

Val	Tyr	Thr	Ala	Met	Asp	Val	Ala	Thr	Gly	Gln	Glu	Val	Ala	Ile	Lys	65	70	75	80
Gln	Met	Asn	Leu	Gln	Gln	Gln	Pro	Lys	Lys	Glu	Leu	Ile	Ile	Asn	Glu	85	90	95	
Ile	Leu	Val	Met	Arg	Glu	Asn	Lys	Asn	Pro	Asn	Ile	Val	Asn	Tyr	Leu	100	105	110	
Asp	Ser	Tyr	Leu	Val	Gly	Asp	Glu	Leu	Trp	Val	Val	Met	Glu	Tyr	Leu	115	120	125	
Ala	Gly	Gly	Ser	Leu	Thr	Asp	Val	Val	Thr	Glu	Thr	Cys	Met	Asp	Glu	130	135	140	
Gly	Gln	Ile	Ala	Ala	Val	Cys	Arg	Glu	Cys	Leu	Gln	Ala	Leu	Glu	Phe	145	150	155	160
Leu	His	Ser	Asn	Gln	Val	Ile	His	Arg	Asp	Ile	Lys	Ser	Asp	Asn	Ile	165	170	175	
Leu	Leu	Gly	Met	Asp	Gly	Ser	Val	Lys	Leu	Thr	Asp	Phe	Gly	Phe	Cys	180	185	190	
Ala	Gln	Ile	Thr	Pro	Glu	Gln	Ser	Lys	Arg	Ser	Thr	Met	Val	Gly	Thr	195	200	205	
Pro	Tyr	Trp	Met	Ala	Pro	Glu	Val	Val	Thr	Arg	Lys	Ala	Tyr	Gly	Pro	210	215	220	
Lys	Val	Asp	Ile	Trp	Ser	Leu	Gly	Ile	Met	Ala	Ile	Glu	Met	Ile	Glu	225	230	235	240
Gly	Glu	Pro	Pro	Tyr	Leu	Asn	Glu	Asn	Pro	Leu	Arg	Ala	Leu	Tyr	Leu	245	250	255	
Ile	Ala	Thr	Asn	Gly	Thr	Pro	Glu	Leu	Gln	Asn	Pro	Glu	Lys	Leu	Ser	260	265	270	
Ala	Ile	Phe	Arg	Asp	Phe	Leu	Asn	Arg	Cys	Leu	Asp	Met	Asp	Val	Glu	275	280	285	
Lys	Arg	Gly	Ser	Ala	Lys	Glu	Leu	Leu	Gln	His	Gln	Phe	Leu	Lys	Ile	290	295	300	
Ala	Lys	Pro	Leu	Ser	Ser	Leu	Thr	Pro	Leu	Ile	Ala	Ala	Ala	Lys	Glu	305	310	315	320
Ala	Thr	Lys	Asn	Asn	His											325			

&lt;210&gt; 49

&lt;211&gt; 349

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 49

His His Arg Val Pro Asn Glu Glu Asp Pro Ser Leu Asp Arg Pro Phe  
 1 5 10 15  
 Ile Ser Glu Gly Thr Thr Leu Lys Asp Leu Ile Tyr Asp Met Thr Thr  
 20 25 30  
 Ser Gly Ser Gly Ser Gly Leu Pro Leu Leu Val Gln Arg Thr Ile Ala  
 35 40 45  
 Arg Thr Ile Val Leu Gln Glu Ser Ile Gly Lys Gly Arg Phe Gly Glu  
 50 55 60  
 Val Trp Arg Gly Lys Trp Arg Gly Glu Glu Val Ala Val Lys Ile Phe  
 65 70 75 80  
 Ser Ser Arg Glu Glu Arg Ser Trp Phe Arg Glu Ala Glu Ile Tyr Gln  
 85 90 95  
 Thr Val Met Leu Arg His Glu Asn Ile Leu Gly Phe Ile Ala Ala Asp  
 100 105 110  
 Asn Lys Asp Asn Gly Thr Trp Thr Gln Leu Trp Leu Val Ser Asp Tyr  
 115 120 125  
 His Glu His Gly Ser Leu Phe Asp Tyr Leu Asn Arg Tyr Thr Val Thr  
 130 135 140  
 Val Glu Gly Met Ile Lys Leu Ala Leu Ser Thr Ala Ser Gly Leu Ala  
 145 150 155 160  
 His Leu His Met Glu Ile Val Gly Thr Gln Gly Lys Pro Ala Ile Ala  
 165 170 175  
 His Arg Asp Leu Lys Ser Lys Asn Ile Leu Val Lys Lys Asn Gly Thr  
 180 185 190  
 Cys Cys Ile Ala Asp Leu Gly Leu Ala Val Arg His Asp Ser Ala Thr  
 195 200 205  
 Asp Thr Ile Asp Ile Ala Pro Asn His Arg Val Gly Thr Lys Arg Tyr  
 210 215 220  
 Met Ala Pro Glu Val Leu Asp Asp Ser Ile Asn Met Lys His Phe Glu  
 225 230 235 240  
 Ser Phe Lys Arg Ala Asp Ile Tyr Ala Met Gly Leu Val Phe Trp Glu  
 245 250 255  
 Ile Ala Arg Arg Cys Ser Ile Gly Gly Ile His Glu Asp Tyr Gln Leu  
 260 265 270  
 Pro Tyr Tyr Asp Leu Val Pro Ser Asp Pro Ser Val Glu Glu Met Arg  
 275 280 285  
 Lys Val Val Cys Glu Gln Lys Leu Arg Pro Asn Ile Pro Asn Arg Trp  
 290 295 300

Gln Ser Cys Glu Ala Leu Arg Val Met Ala Lys Ile Met Arg Glu Cys  
 305 310 315 320

Trp Tyr Ala Asn Gly Ala Ala Arg Leu Thr Ala Leu Arg Ile Lys Lys  
 325 330 335

Thr Leu Ser Gln Leu Ser Gln Gln Glu Gly Ile Lys Met  
 340 345

<210> 50

<211> 370

<212> PRT

<213> Homo sapiens

<400> 50

Gly Ser Ile Tyr Leu Phe Leu Arg Lys Arg Gln Pro Asp Gly Pro Leu  
 1 5 10 15

Gly Pro Leu Tyr Ala Ser Ser Asn Pro Glu Tyr Leu Ser Ala Ser Asp  
 20 25 30

Val Phe Pro Cys Ser Val Tyr Val Pro Asp Glu Trp Glu Val Ser Arg  
 35 40 45

Glu Lys Ile Thr Leu Leu Arg Glu Leu Gly Gln Gly Ser Phe Gly Met  
 50 55 60

Val Tyr Glu Gly Asn Ala Arg Asp Ile Ile Lys Gly Glu Ala Glu Thr  
 65 70 75 80

Arg Val Ala Val Lys Thr Val Asn Glu Ser Ala Ser Leu Arg Glu Arg  
 85 90 95

Ile Glu Phe Leu Asn Glu Ala Ser Val Met Lys Gly Phe Thr Cys His  
 100 105 110

His Val Val Arg Leu Leu Gly Val Val Ser Lys Gly Gln Pro Thr Leu  
 115 120 125

Val Val Met Glu Leu Met Ala His Gly Asp Leu Lys Ser Tyr Leu Arg  
 130 135 140

Ser Leu Arg Pro Glu Ala Glu Asn Asn Pro Gly Arg Pro Pro Pro Thr  
 145 150 155 160

Leu Gln Glu Met Ile Gln Met Ala Ala Glu Ile Ala Asp Gly Met Ala  
 165 170 175

Tyr Leu Asn Ala Lys Lys Phe Val His Arg Asp Leu Ala Ala Arg Asn  
 180 185 190

Cys Met Val Ala His Asp Phe Thr Val Lys Ile Gly Asp Phe Gly Met  
 195 200 205

Thr Arg Asp Ile Tyr Glu Thr Asp Tyr Tyr Arg Lys Gly Gly Lys Gly  
 210 215 220

Leu Leu Pro Val Arg Trp Met Ala Pro Glu Ser Leu Lys Asp Gly Val  
225 230 235 240

Phe Thr Thr Ser Ser Asp Met Trp Ser Phe Gly Val Val Leu Trp Glu  
245 250 255

Ile Thr Ser Leu Ala Glu Gln Pro Tyr Gln Gly Leu Ser Asn Glu Gln  
260 265 270

Val Leu Lys Phe Val Met Asp Gly Gly Tyr Leu Asp Gln Pro Asp Asn  
275 280 285

Cys Pro Glu Arg Val Thr Asp Leu Met Arg Met Cys Trp Gln Phe Asn  
290 295 300

Pro Lys Met Arg Pro Thr Phe Leu Glu Ile Val Asn Leu Leu Lys Asp  
305 310 315 320

Asp Leu His Pro Ser Phe Pro Glu Val Ser Phe Phe His Ser Glu Glu  
325 330 335

Asn Lys Ala Pro Glu Ser Glu Glu Leu Glu Met Glu Phe Glu Asp Met  
340 345 350

Glu Asn Val Pro Leu Asp Arg Ser Ser His Cys Gln Arg Glu Glu Ala  
355 360 365

Gly Gly  
370

<210> 51

<211> 298

<212> PRT

<213> Homo sapiens

<400> 51

Met Glu Asn Phe Gln Lys Val Glu Lys Ile Gly Glu Gly Thr Tyr Gly  
1 5 10 15

Val Val Tyr Lys Ala Arg Asn Lys Leu Thr Gly Glu Val Val Ala Leu  
20 25 30

Lys Lys Ile Arg Leu Asp Thr Glu Thr Glu Gly Val Pro Ser Thr Ala  
35 40 45

Ile Arg Glu Ile Ser Leu Leu Lys Glu Leu Asn His Pro Asn Ile Val  
50 55 60

Lys Leu Leu Asp Val Ile His Thr Glu Asn Lys Leu Tyr Leu Val Phe  
65 70 75 80

Glu Phe Leu His Gln Asp Leu Lys Lys Phe Met Asp Ala Ser Ala Leu  
85 90 95

Thr Gly Ile Pro Leu Pro Leu Ile Lys Ser Tyr Leu Phe Gln Leu Leu  
100 105 110

Gln Gly Leu Ala Phe Cys His Ser His Arg Val Leu His Arg Asp Leu  
 115 120 125

Lys Pro Gln Asn Leu Leu Ile Asn Thr Glu Gly Ala Ile Lys Leu Ala  
 130 135 140

Asp Phe Gly Leu Ala Arg Ala Phe Gly Val Pro Val Arg Thr Tyr Thr  
 145 150 155 160

His Glu Val Val Thr Leu Trp Tyr Arg Ala Pro Glu Ile Leu Leu Gly  
 165 170 175

Cys Lys Tyr Tyr Ser Thr Ala Val Asp Ile Trp Ser Leu Gly Cys Ile  
 180 185 190

Phe Ala Glu Met Val Thr Arg Arg Ala Leu Phe Pro Gly Asp Ser Glu  
 195 200 205

Ile Asp Gln Leu Phe Arg Ile Phe Arg Thr Leu Gly Thr Pro Asp Glu  
 210 215 220

Val Val Trp Pro Gly Val Thr Ser Met Pro Asp Tyr Lys Pro Ser Phe  
 225 230 235 240

Pro Lys Trp Ala Arg Gln Asp Phe Ser Lys Val Val Pro Pro Leu Asp  
 245 250 255

Glu Asp Gly Arg Ser Leu Leu Ser Gln Met Leu His Tyr Asp Pro Asn  
 260 265 270

Lys Arg Ile Ser Ala Lys Ala Ala Leu Ala His Pro Phe Phe Gln Asp  
 275 280 285

Val Thr Lys Pro Val Pro His Leu Arg Leu  
 290 295

<210> 52

<211> 326

<212> PRT

<213> Homo sapiens

<400> 52

Met Glu Lys Asp Gly Leu Cys Arg Ala Asp Gln Gln Tyr Glu Cys Val  
 1 5 10 15

Ala Glu Ile Gly Glu Gly Ala Tyr Gly Lys Val Phe Lys Ala Arg Asp  
 20 25 30

Leu Lys Asn Gly Gly Arg Phe Val Ala Leu Lys Arg Val Arg Val Gln  
 35 40 45

Thr Gly Glu Glu Gly Met Pro Leu Ser Thr Ile Arg Glu Val Ala Val  
 50 55 60

Leu Arg His Leu Glu Thr Phe Glu His Pro Asn Val Val Arg Leu Phe  
 65 70 75 80

Asp Val Cys Thr Val Ser Arg Thr Asp Arg Glu Thr Lys Leu Thr Leu  
                     85                    90                    95  
 Val Phe Glu His Val Asp Gln Asp Leu Thr Thr Tyr Leu Asp Lys Val  
                     100                    105                    110  
 Pro Glu Pro Gly Val Pro Thr Glu Thr Ile Lys Asp Met Met Phe Gln  
                     115                    120                    125  
 Leu Leu Arg Gly Leu Asp Phe Leu His Ser His Arg Val Val His Arg  
                     130                    135                    140  
 Asp Leu Lys Pro Gln Asn Ile Leu Val Thr Ser Ser Gly Gln Ile Lys  
                     145                    150                    155                    160  
 Leu Ala Asp Phe Gly Leu Ala Arg Ile Tyr Ser Phe Gln Met Ala Leu  
                     165                    170                    175  
 Thr Ser Val Val Val Thr Leu Trp Tyr Arg Ala Pro Glu Val Leu Leu  
                     180                    185                    190  
 Gln Ser Ser Tyr Ala Thr Pro Val Asp Leu Trp Ser Val Gly Cys Ile  
                     195                    200                    205  
 Phe Ala Glu Met Phe Arg Arg Lys Pro Leu Phe Arg Gly Ser Ser Asp  
                     210                    215                    220  
 Val Asp Gln Leu Gly Lys Ile Leu Asp Val Ile Gly Leu Pro Gly Glu  
                     225                    230                    235                    240  
 Glu Asp Trp Pro Arg Asp Val Ala Leu Pro Arg Gln Ala Phe His Ser  
                     245                    250                    255  
 Lys Ser Ala Gln Pro Ile Glu Lys Phe Val Thr Asp Ile Asp Glu Leu  
                     260                    265                    270  
 Gly Lys Asp Leu Leu Leu Lys Cys Leu Thr Phe Asn Pro Ala Lys Arg  
                     275                    280                    285  
 Ile Ser Ala Tyr Ser Ala Leu Ser His Pro Tyr Phe Gln Asp Leu Glu  
                     290                    295                    300  
 Arg Cys Lys Glu Asn Leu Asp Ser His Leu Pro Pro Ser Gln Asn Thr  
                     305                    310                    315                    320  
 Ser Glu Leu Asn Thr Ala  
                     325

&lt;210&gt; 53

&lt;211&gt; 385

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 53

Arg Thr Thr Ser Phe Ala Glu Ser Cys Lys Pro Val Gln Gln Pro Ser  
     1                    5                    10                    15



Ala	Phe	Gly	Ser	Met	Lys	Val	Ser	Arg	Asp	Lys	Asp	Gly	Ser	Lys	Val	20	25	30	
Thr	Thr	Val	Val	Ala	Thr	Pro	Gly	Gln	Gly	Pro	Asp	Arg	Pro	Gln	Glu	35	40	45	
Val	Ser	Tyr	Thr	Asp	Thr	Lys	Val	Ile	Gly	Asn	Gly	Ser	Phe	Gly	Val	50	55	60	
Val	Tyr	Gln	Ala	Lys	Leu	Cys	Asp	Ser	Gly	Glu	Leu	Val	Ala	Ile	Lys	65	70	75	80
Lys	Val	Leu	Gln	Asp	Lys	Arg	Phe	Lys	Asn	Arg	Glu	Leu	Gln	Ile	Met	85	90	95	
Arg	Lys	Leu	Asp	His	Cys	Asn	Ile	Val	Arg	Leu	Arg	Tyr	Phe	Phe	Tyr	100	105	110	
Ser	Ser	Gly	Glu	Lys	Lys	Asp	Glu	Val	Tyr	Leu	Asn	Leu	Val	Leu	Asp	115	120	125	
Tyr	Val	Pro	Glu	Thr	Val	Tyr	Arg	Val	Ala	Arg	His	Tyr	Ser	Arg	Ala	130	135	140	
Lys	Gln	Thr	Leu	Pro	Val	Ile	Tyr	Val	Lys	Leu	Tyr	Met	Tyr	Gln	Leu	145	150	155	160
Phe	Arg	Ser	Leu	Ala	Tyr	Ile	His	Ser	Phe	Gly	Ile	Cys	His	Arg	Asp	165	170	175	
Ile	Lys	Pro	Gln	Asn	Leu	Leu	Leu	Asp	Pro	Asp	Thr	Ala	Val	Leu	Lys	180	185	190	
Leu	Cys	Asp	Phe	Gly	Ser	Ala	Lys	Gln	Leu	Val	Arg	Gly	Glu	Pro	Asn	195	200	205	
Val	Ser	Tyr	Ile	Cys	Ser	Arg	Tyr	Tyr	Arg	Ala	Pro	Glu	Leu	Ile	Phe	210	215	220	
Gly	Ala	Thr	Asp	Tyr	Thr	Ser	Ser	Ile	Asp	Val	Trp	Ser	Ala	Gly	Cys	225	230	235	240
Val	Leu	Ala	Glu	Leu	Leu	Leu	Gly	Gln	Pro	Ile	Phe	Pro	Gly	Asp	Ser	245	250	255	
Gly	Val	Asp	Gln	Leu	Val	Glu	Ile	Ile	Lys	Val	Leu	Gly	Thr	Pro	Thr	260	265	270	
Arg	Glu	Gln	Ile	Arg	Glu	Met	Asn	Pro	Asn	Tyr	Thr	Glu	Phe	Lys	Phe	275	280	285	
Pro	Gln	Ile	Lys	Ala	His	Pro	Trp	Thr	Lys	Val	Phe	Arg	Pro	Arg	Thr	290	295	300	
Pro	Pro	Glu	Ala	Ile	Ala	Leu	Cys	Ser	Arg	Leu	Leu	Glu	Tyr	Thr	Pro	305	310	315	320

Thr Ala Arg Leu Thr Pro Leu Glu Ala Cys Ala His Ser Phe Phe Asp  
325 330 335

Glu Leu Arg Asp Pro Asn Val Lys His Pro Asn Gly Arg Asp Thr Pro  
340 345 350

Ala Leu Phe Asn Phe Thr Thr Gln Glu Leu Ser Ser Asn Pro Pro Leu  
355 360 365

Ala Thr Ile Leu Ile Pro Pro His Ala Arg Ile Gln Ala Ala Ala Ser  
370 375 380

Thr  
385

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<210> 54
<211> 298
<212> PRT
<213> Homo sapiens
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<400> 54
Met Gly Asn Ala Ala Ala Lys Lys Gly Ser Glu Gln Glu Ser Val
  1             5             10             15
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Lys Glu Phe Leu Ala Lys Ala Lys Glu Asp Phe Leu Lys Lys Trp Glu  
20 25 30

Ser Pro Ala Gln Asn Thr Ala His Leu Asp Gln Phe Glu Arg Ile Lys  
35 40 45

Thr Leu Gly Thr Gly Ser Phe Gly Arg Val Met Leu Val Lys His Lys  
50 55 60

Glu Thr Gly Asn His Tyr Ala Met Lys Ile Leu Asp Lys Gln Lys Val  
65 70 75 80

Val Lys Leu Lys Gln Ile Glu His Thr Leu Asn Glu Lys Arg Ile Leu  
85 90 95

Gln Ala Val Asn Phe Pro Phe Leu Val Lys Leu Glu Phe Ser Phe Lys  
100 105 110

Asp Asn Ser Asn Leu Tyr Met Val Met Glu Tyr Val Pro Gly Gly Glu  
115 120 125

Met Phe Ser His Leu Arg Arg Ile Gly Arg Phe Ser Glu Pro His Ala  
130 135 140

Arg Phe Tyr Ala Ala Gln Ile Val Leu Thr Phe Glu Tyr Leu His Ser  
145 150 155 160

Leu Asp Leu Ile Tyr Arg Asp Leu Lys Pro Glu Asn Leu Leu Ile Asp  
165 170 175

Gln Gln Gly Tyr Ile Gln Val Thr Asp Phe Gly Phe Ala Lys Arg Val  
180 185 190

Lys Gly Arg Thr Trp Thr Leu Cys Gly Thr Pro Glu Tyr Leu Ala Pro  
 195 200 205  
 Glu Ile Ile Leu Ser Lys Gly Tyr Asn Lys Ala Val Asp Trp Trp Ala  
 210 215 220  
 Leu Gly Val Leu Ile Tyr Glu Met Ala Ala Gly Tyr Pro Pro Phe Phe  
 225 230 235 240  
 Ala Asp Gln Pro Ile Gln Ile Tyr Glu Lys Ile Val Ser Gly Lys Val  
 245 250 255  
 Arg Phe Pro Ser His Phe Ser Ser Asp Leu Lys Asp Leu Leu Arg Asn  
 260 265 270  
 Leu Leu Gln Val Asp Leu Thr Lys Arg Phe Gly Asn Leu Lys Asn Gly  
 275 280 285  
 Val Asn Asp Ile Lys Asn His Lys Trp Phe  
 290 295

<210> 55  
 <211> 326  
 <212> PRT  
 <213> Homo sapiens

<400> 55  
 Met Leu Gly Ala Val Glu Gly Pro Arg Trp Lys Gln Ala Glu Asp Ile  
 1 5 10 15  
 Arg Asp Ile Tyr Asp Phe Arg Asp Val Leu Gly Thr Gly Ala Phe Ser  
 20 25 30  
 Glu Val Ile Leu Ala Glu Asp Lys Arg Thr Gln Lys Leu Val Ala Ile  
 35 40 45  
 Lys Cys Ile Ala Lys Glu Ala Leu Glu Gly Lys Glu Gly Ser Met Glu  
 50 55 60  
 Asn Glu Ile Ala Val Leu His Lys Ile Lys His Pro Asn Ile Val Ala  
 65 70 75 80  
 Leu Asp Asp Ile Tyr Glu Ser Gly Gly His Leu Tyr Leu Ile Met Gln  
 85 90 95  
 Leu Val Ser Gly Gly Glu Leu Phe Asp Arg Ile Val Glu Lys Gly Phe  
 100 105 110  
 Tyr Thr Glu Arg Asp Ala Ser Arg Leu Ile Phe Gln Val Leu Asp Ala  
 115 120 125  
 Val Lys Tyr Leu His Asp Leu Gly Ile Val His Arg Asp Leu Lys Pro  
 130 135 140  
 Glu Asn Leu Leu Tyr Tyr Ser Leu Asp Glu Asp Ser Lys Ile Met Ile  
 145 150 155 160

Ser Asp Phe Gly Leu Ser Lys Met Glu Asp Pro Gly Ser Val Leu Ser  
 165 170 175

Thr Ala Cys Gly Thr Pro Gly Tyr Val Ala Pro Glu Val Leu Ala Gln  
 180 185 190

Lys Pro Tyr Ser Lys Ala Val Asp Cys Trp Ser Ile Gly Val Ile Ala  
 195 200 205

Tyr Ile Leu Leu Cys Gly Tyr Pro Pro Phe Tyr Asp Glu Asn Asp Ala  
 210 215 220

Lys Leu Phe Glu Gln Ile Leu Lys Ala Glu Tyr Glu Phe Asp Ser Pro  
 225 230 235 240

Tyr Trp Asp Asp Ile Ser Asp Ser Ala Lys Asp Phe Ile Arg His Leu  
 245 250 255

Met Glu Lys Asp Pro Glu Lys Arg Phe Thr Cys Glu Gln Ala Leu Gln  
 260 265 270

His Pro Trp Ile Ala Gly Asp Thr Ala Leu Asp Lys Asn Ile His Gln  
 275 280 285

Ser Val Ser Glu Gln Ile Lys Lys Asn Phe Ala Lys Ser Lys Trp Lys  
 290 295 300

Gln Ala Phe Asn Ala Thr Ala Val Val Arg His Met Arg Lys Leu Gln  
 305 310 315 320

Leu Gly Thr Ser Gln Glu  
 325

<210> 56

<211> 360

<212> PRT

<213> Homo sapiens

<400> 56

Met Ala Ala Ala Ala Ala Gly Ala Gly Pro Glu Met Val Arg Gly  
 1 5 10 15

Gln Val Phe Asp Val Gly Pro Arg Tyr Thr Asn Leu Ser Tyr Ile Gly  
 20 25 30

Glu Gly Ala Tyr Gly Met Val Cys Ser Ala Tyr Asp Asn Val Asn Lys  
 35 40 45

Val Arg Val Ala Ile Lys Lys Ile Ser Pro Phe Glu His Gln Thr Tyr  
 50 55 60

Cys Gln Arg Thr Leu Arg Glu Ile Lys Ile Leu Leu Arg Phe Arg His  
 65 70 75 80

Glu Asn Ile Ile Gly Ile Asn Asp Ile Ile Arg Ala Pro Thr Ile Glu  
 85 90 95

Gln Met Lys Asp Val Tyr Ile Val Gln Asp Leu Met Glu Thr Asp Leu  
 100 105 110  
 Tyr Lys Leu Leu Lys Thr Gln His Leu Ser Asn Asp His Ile Cys Tyr  
 115 120 125  
 Phe Leu Tyr Gln Ile Leu Arg Gly Leu Lys Tyr Ile His Ser Ala Asn  
 130 135 140  
 Val Leu His Arg Asp Leu Lys Pro Ser Asn Leu Leu Asn Thr Thr  
 145 150 155 160  
 Cys Asp Leu Lys Ile Cys Asp Phe Gly Leu Ala Arg Val Ala Asp Pro  
 165 170 175  
 Asp His Asp His Thr Gly Phe Leu Thr Glu Tyr Val Ala Thr Arg Trp  
 180 185 190  
 Tyr Arg Ala Pro Glu Ile Met Leu Asn Ser Lys Gly Tyr Thr Lys Ser  
 195 200 205  
 Ile Asp Ile Trp Ser Val Gly Cys Ile Leu Ala Glu Met Leu Ser Asn  
 210 215 220  
 Arg Pro Ile Phe Pro Gly Lys His Tyr Leu Asp Gln Leu Lys His Ile  
 225 230 235 240  
 Leu Gly Ile Leu Gly Ser Pro Ser Gln Glu Asp Leu Asn Cys Ile Ile  
 245 250 255  
 Asn Leu Lys Ala Arg Asn Tyr Leu Leu Ser Leu Pro His Lys Asn Lys  
 260 265 270  
 Val Pro Trp Asn Arg Leu Phe Pro Asn Ala Asp Ser Lys Ala Leu Asp  
 275 280 285  
 Leu Leu Asp Lys Met Leu Thr Phe Asn Pro His Lys Arg Ile Glu Val  
 290 295 300  
 Glu Gln Ala Leu Ala His Pro Tyr Leu Glu Gln Tyr Tyr Asp Pro Ser  
 305 310 315 320  
 Asp Glu Pro Ile Ala Glu Ala Pro Phe Lys Phe Asp Met Glu Leu Asp  
 325 330 335  
 Asp Leu Pro Lys Glu Lys Leu Lys Glu Leu Ile Phe Glu Glu Thr Ala  
 340 345 350  
 Arg Phe Gln Pro Gly Tyr Arg Ser  
 355 360

&lt;210&gt; 57

&lt;211&gt; 343

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 57

Ser Thr Val Ala Asp Gly Leu Ile Thr Thr Leu His Tyr Pro Ala Pro  
 1 5 10 15  
 Lys Arg Asn Lys Pro Thr Val Tyr Gly Val Ser Pro Asn Tyr Asp Lys  
 20 25 30  
 Trp Glu Met Glu Arg Thr Asp Ile Thr Met Lys His Lys Leu Gly Gly  
 35 40 45  
 Gly Gln Tyr Gly Glu Val Tyr Glu Gly Val Trp Lys Lys Tyr Ser Leu  
 50 55 60  
 Thr Val Ala Val Lys Thr Leu Lys Glu Asp Thr Met Glu Val Glu Glu  
 65 70 75 80  
 Phe Leu Lys Glu Ala Ala Val Met Lys Glu Ile Lys His Pro Asn Leu  
 85 90 95  
 Val Gln Leu Leu Gly Val Cys Thr Arg Glu Pro Pro Phe Tyr Ile Ile  
 100 105 110  
 Thr Glu Phe Met Thr Tyr Gly Asn Leu Leu Asp Tyr Leu Arg Glu Cys  
 115 120 125  
 Asn Arg Gln Glu Val Asn Ala Val Val Leu Leu Tyr Met Ala Thr Gln  
 130 135 140  
 Ile Ser Ser Ala Met Glu Tyr Leu Glu Lys Lys Asn Phe Ile His Arg  
 145 150 155 160  
 Asp Leu Ala Ala Arg Asn Cys Leu Val Gly Glu Asn His Leu Val Lys  
 165 170 175  
 Val Ala Asp Phe Gly Leu Ser Arg Leu Met Thr Gly Asp Thr Tyr Thr  
 180 185 190  
 Ala His Ala Gly Ala Lys Phe Pro Ile Lys Trp Thr Ala Pro Glu Ser  
 195 200 205  
 Leu Ala Tyr Asn Lys Phe Ser Ile Lys Ser Asp Val Trp Ala Phe Gly  
 210 215 220  
 Val Leu Leu Trp Glu Ile Ala Thr Tyr Gly Met Ser Pro Tyr Pro Gly  
 225 230 235 240  
 Ile Asp Leu Ser Gln Val Tyr Glu Leu Leu Glu Lys Asp Tyr Arg Met  
 245 250 255  
 Glu Arg Pro Glu Gly Cys Pro Glu Lys Val Tyr Glu Leu Met Arg Ala  
 260 265 270  
 Cys Trp Gln Trp Asn Pro Ser Asp Arg Pro Ser Phe Ala Glu Ile His  
 275 280 285  
 Gln Ala Phe Glu Thr Met Phe Gln Glu Ser Ser Ile Ser Asp Glu Val  
 290 295 300

Glu Lys Glu Leu Gly Lys Gln Gly Val Arg Gly Ala Val Ser Thr Leu  
 305 310 315 320

Leu Gln Ala Pro Glu Leu Pro Thr Lys Thr Arg Thr Ser Arg Arg Ala  
 325 330 335

Ala Glu His Arg Asp Thr Thr  
 340

<210> 58

<211> 351

<212> PRT

<213> Homo sapiens

<400> 58

Arg Ala Asn Val Gln Arg Arg Met Ala Gln Ala Phe Gln Asn Val Arg  
 1 5 10 15

Glu Glu Pro Ala Val Gln Phe Asn Ser Gly Thr Leu Ala Leu Asn Arg  
 20 25 30

Lys Val Lys Asn Asn Pro Asp Pro Thr Ile Tyr Pro Val Leu Asp Trp  
 35 40 45

Asn Asp Ile Lys Phe Gln Asp Val Ile Gly Glu Gly Asn Phe Gly Gln  
 50 55 60

Val Leu Lys Ala Arg Ile Lys Lys Asp Gly Leu Arg Met Asp Ala Ala  
 65 70 75 80

Ile Lys Arg Met Lys Glu Tyr Ala Ser Lys Asp Asp His Arg Asp Phe  
 85 90 95

Ala Gly Glu Leu Glu Val Leu Cys Lys Leu Gly His His Pro Asn Ile  
 100 105 110

Ile Asn Leu Leu Gly Ala Cys Glu His Arg Gly Tyr Leu Tyr Leu Ala  
 115 120 125

Ile Glu Tyr Ala Pro His Gly Asn Leu Leu Asp Phe Leu Arg Lys Ser  
 130 135 140

Arg Val Leu Glu Thr Asp Pro Ala Phe Ala Ile Ala Asn Ser Thr Ala  
 145 150 155 160

Ser Thr Leu Ser Ser Gln Gln Leu Leu His Phe Ala Ala Asp Val Ala  
 165 170 175

Arg Gly Met Asp Tyr Leu Ser Gln Lys Gln Phe Ile His Arg Asp Leu  
 180 185 190

Ala Ala Arg Asn Ile Leu Val Gly Glu Asn Tyr Val Ala Lys Ile Ala  
 195 200 205

Asp Phe Gly Leu Ser Arg Gly Gln Glu Val Tyr Val Lys Lys Thr Met  
 210 215 220

Gly Arg Leu Pro Val Arg Trp Met Ala Ile Glu Ser Leu Asn Tyr Ser  
225 230 235 240

Val Tyr Thr Thr Asn Ser Asp Val Trp Ser Tyr Gly Val Leu Leu Trp  
245 250 255

Glu Ile Val Ser Leu Gly Gly Thr Pro Tyr Cys Gly Met Thr Cys Ala  
260 265 270

Glu Leu Tyr Glu Lys Leu Pro Gln Gly Tyr Arg Leu Glu Lys Pro Leu  
275 280 285

Asn Cys Asp Asp Glu Val Tyr Asp Leu Met Arg Gln Cys Trp Arg Glu  
290 295 300

Lys Pro Tyr Glu Arg Pro Ser Phe Ala Gln Ile Leu Val Ser Leu Asn  
305 310 315 320

Arg Met Leu Glu Glu Arg Lys Thr Tyr Val Asn Thr Thr Leu Tyr Glu  
325 330 335

Lys Phe Thr Tyr Ala Gly Ile Asp Cys Ser Ala Glu Glu Ala Ala  
340 345 350

<210> 59

<211> 349

<212> PRT

<213> Homo sapiens

<400> 59

Glu Pro Ser Glu Pro Thr Ile Thr Lys Glu Asp Lys Thr Arg Ala Met  
1 5 10 15

Asn Tyr Asp Glu Glu Val Asp Glu Thr Arg Glu Val Ser Met Thr Lys  
20 25 30

Ala Ser His Ser Ser Thr Lys Glu Leu Tyr Glu Lys Tyr Met Ile Ala  
35 40 45

Glu Asp Leu Gly Arg Gly Glu Phe Gly Ile Val His Arg Cys Val Glu  
50 55 60

Thr Ser Ser Lys Lys Thr Tyr Met Ala Lys Phe Val Lys Val Lys Gly  
65 70 75 80

Thr Asp Gln Val Leu Val Lys Lys Glu Ile Ser Ile Leu Asn Ile Ala  
85 90 95

Arg His Arg Asn Ile Leu His Leu His Glu Ser Phe Glu Ser Met Glu  
100 105 110

Glu Leu Val Met Ile Phe Glu Phe Ile Ser Gly Leu Asp Ile Phe Glu  
115 120 125

Arg Ile Asn Thr Ser Ala Phe Glu Leu Asn Glu Arg Glu Ile Val Ser  
130 135 140



Tyr Val His Gln Val Cys Glu Ala Leu Gln Phe Leu His Ser His Asn  
 145 150 155 160  
 Ile Gly His Phe Asp Ile Arg Pro Glu Asn Ile Ile Tyr Gln Thr Arg  
 165 170 175  
 Arg Ser Ser Thr Ile Lys Ile Ile Glu Phe Gly Gln Ala Arg Gln Leu  
 180 185 190  
 Lys Pro Gly Asp Asn Phe Arg Leu Leu Phe Thr Ala Pro Glu Tyr Tyr  
 195 200 205  
 Ala Pro Glu Val His Gln His Asp Val Val Ser Thr Ala Thr Asp Met  
 210 215 220  
 Trp Ser Leu Gly Thr Leu Val Tyr Val Leu Leu Ser Gly Ile Asn Pro  
 225 230 235 240  
 Phe Leu Ala Glu Thr Asn Gln Gln Ile Ile Glu Asn Ile Met Asn Ala  
 245 250 255  
 Glu Tyr Thr Phe Asp Glu Glu Ala Phe Lys Glu Ile Ser Ile Glu Ala  
 260 265 270  
 Met Asp Phe Val Asp Arg Leu Leu Val Lys Glu Arg Lys Ser Arg Met  
 275 280 285  
 Thr Ala Ser Glu Ala Leu Gln His Pro Trp Leu Lys Gln Lys Ile Glu  
 290 295 300  
 Arg Val Ser Thr Lys Val Ile Arg Thr Leu Lys His Arg Arg Tyr Tyr  
 305 310 315 320  
 His Thr Leu Ile Lys Lys Asp Leu Asn Met Val Val Ser Ala Ala Arg  
 325 330 335  
 Ile Ser Cys Gly Gly Ala Ile Arg Ser Gln Lys Gly Val  
 340 345

&lt;210&gt; 60

&lt;211&gt; 358

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 60

Met Ser Gln Glu Arg Pro Thr Phe Tyr Arg Gln Glu Leu Asn Lys Thr  
 1 5 10 15  
 Ile Trp Glu Val Pro Glu Arg Tyr Gln Asn Leu Ser Pro Val Gly Ser  
 20 25 30  
 Gly Ala Tyr Gly Ser Val Cys Ala Ala Phe Asp Thr Lys Thr Gly Leu  
 35 40 45  
 Arg Val Ala Val Lys Lys Leu Ser Arg Pro Phe Gln Ser Ile Ile His  
 50 55 60

Ala	Lys	Arg	Thr	Tyr	Arg	Glu	Leu	Arg	Leu	Leu	Lys	His	Met	Lys	His	65	70	75	80
Glu	Asn	Val	Ile	Gly	Leu	Leu	Asp	Val	Phe	Thr	Pro	Ala	Arg	Ser	Leu	85	90	95	
Glu	Glu	Phe	Asn	Asp	Val	Tyr	Leu	Val	Thr	His	Leu	Met	Gly	Ala	Asp	100	105	110	
Leu	Asn	Asn	Ile	Val	Lys	Cys	Gln	Lys	Leu	Thr	Asp	Asp	His	Val	Gln	115	120	125	
Phe	Leu	Ile	Tyr	Gln	Ile	Leu	Arg	Gly	Leu	Lys	Tyr	Ile	His	Ser	Ala	130	135	140	
Asp	Ile	Ile	His	Arg	Asp	Leu	Lys	Pro	Ser	Asn	Leu	Ala	Val	Asn	Glu	145	150	155	160
Asp	Cys	Glu	Leu	Lys	Ile	Leu	Asp	Phe	Gly	Leu	Ala	Arg	His	Thr	Asp	165	170	175	
Asp	Glu	Met	Thr	Gly	Tyr	Val	Ala	Thr	Arg	Trp	Tyr	Arg	Ala	Pro	Glu	180	185	190	
Ile	Met	Leu	Asn	Trp	Met	His	Tyr	Asn	Gln	Thr	Val	Asp	Ile	Trp	Ser	195	200	205	
Val	Gly	Cys	Ile	Met	Ala	Glu	Leu	Leu	Thr	Gly	Arg	Thr	Leu	Phe	Pro	210	215	220	
Gly	Thr	Asp	His	Ile	Asp	Gln	Leu	Lys	Leu	Ile	Leu	Arg	Leu	Val	Gly	225	230	235	240
Thr	Pro	Gly	Ala	Glu	Leu	Leu	Lys	Lys	Ile	Ser	Ser	Glu	Ser	Ala	Arg	245	250	255	
Asn	Tyr	Ile	Gln	Ser	Leu	Thr	Gln	Met	Pro	Lys	Met	Asn	Phe	Ala	Asn	260	265	270	
Val	Phe	Ile	Gly	Ala	Asn	Pro	Leu	Ala	Val	Asp	Leu	Leu	Glu	Lys	Met	275	280	285	
Leu	Val	Leu	Asp	Ser	Asp	Lys	Arg	Ile	Thr	Ala	Ala	Gln	Ala	Leu	Ala	290	295	300	
His	Ala	Tyr	Phe	Ala	Gln	Tyr	His	Asp	Pro	Asp	Asp	Glu	Pro	Val	Ala	305	310	315	320
Asp	Pro	Tyr	Asp	Gln	Ser	Phe	Glu	Ser	Arg	Asp	Leu	Leu	Ile	Asp	Glu	325	330	335	
Trp	Lys	Ser	Leu	Thr	Tyr	Asp	Glu	Val	Ile	Ser	Phe	Val	Pro	Pro	Pro	340	345	350	
Leu	Asp	Gln	Glu	Glu	Met	355													

<210> 61  
 <211> 338  
 <212> PRT  
 <213> Homo sapiens

<400> 61  
 Met Thr Arg Asp Glu Ala Leu Pro Asp Ser His Ser Ala Gln Asp Phe  
           1                  5                  10                  15  
 Tyr Glu Asn Tyr Glu Pro Lys Glu Ile Leu Gly Arg Gly Val Ser Ser  
                   20                  25                  30  
 Val Val Arg Arg Cys Ile His Lys Pro Thr Ser Gln Glu Tyr Ala Val  
                   35                  40                  45  
 Lys Val Ile Asp Val Thr Gly Gly Gly Ser Phe Ser Pro Glu Glu Val  
           50                  55                  60  
 Arg Glu Leu Arg Glu Ala Thr Leu Lys Glu Val Asp Ile Leu Arg Lys  
           65                  70                  75                  80  
 Val Ser Gly His Pro Asn Ile Ile Gln Leu Lys Asp Thr Tyr Glu Thr  
                   85                  90                  95  
 Asn Thr Phe Phe Phe Leu Val Phe Asp Leu Met Lys Arg Gly Glu Leu  
                   100                  105                  110  
 Phe Asp Tyr Leu Thr Glu Lys Val Thr Leu Ser Glu Lys Glu Thr Arg  
           115                  120                  125  
 Lys Ile Met Arg Ala Leu Leu Glu Val Ile Cys Thr Leu His Lys Leu  
           130                  135                  140  
 Asn Ile Val His Arg Asp Leu Lys Pro Glu Asn Ile Leu Leu Asp Asp  
           145                  150                  155                  160  
 Asn Met Asn Ile Lys Leu Thr Asp Phe Gly Phe Ser Cys Gln Leu Glu  
                   165                  170                  175  
 Pro Gly Glu Arg Leu Arg Glu Val Cys Gly Thr Pro Ser Tyr Leu Ala  
                   180                  185                  190  
 Pro Glu Ile Ile Glu Cys Ser Met Asn Glu Asp His Pro Gly Tyr Gly  
           195                  200                  205  
 Lys Glu Val Asp Met Trp Ser Thr Gly Val Ile Met Tyr Thr Leu Leu  
           210                  215                  220  
 Ala Gly Ser Pro Pro Phe Trp His Arg Lys Gln Met Leu Met Leu Arg  
           225                  230                  235                  240  
 Met Ile Met Ser Gly Asn Tyr Gln Phe Gly Ser Pro Glu Trp Asp Asp  
                   245                  250                  255  
 Tyr Ser Asp Thr Val Lys Asp Leu Val Ser Arg Phe Leu Val Val Gln  
           260                  265                  270

Pro Gln Asn Arg Tyr Thr Ala Glu Glu Ala Leu Ala His Pro Phe Phe  
 275 280 285

Gln Gln Tyr Leu Val Glu Glu Val Arg His Phe Ser Pro Arg Gly Lys  
 290 295 300

Phe Lys Val Ile Ala Leu Thr Val Leu Ala Ser Val Arg Ile Tyr Tyr  
 305 310 315 320

Gln Tyr Arg Arg Val Lys Pro Val Thr Arg Glu Ile Val Ile Arg Asp  
 325 330 335

Pro Tyr

<210> 62

<211> 374

<212> PRT

<213> Homo sapiens

<400> 62

Met Ser Gly Pro Val Pro Ser Arg Ala Arg Val Tyr Thr Asp Val Asn  
 1 5 10 15

Thr His Arg Pro Arg Glu Tyr Trp Asp Tyr Glu Ser His Val Val Glu  
 20 25 30

Trp Gly Asn Gln Asp Asp Tyr Gln Leu Val Arg Lys Leu Gly Arg Gly  
 35 40 45

Lys Tyr Ser Glu Val Phe Glu Ala Ile Asn Ile Thr Asn Asn Glu Lys  
 50 55 60

Val Val Val Lys Ile Leu Lys Pro Val Lys Lys Lys Lys Ile Lys Arg  
 65 70 75 80

Glu Ile Lys Ile Leu Glu Asn Leu Arg Gly Gly Pro Asn Ile Ile Thr  
 85 90 95

Leu Ala Asp Ile Val Lys Asp Pro Val Ser Arg Thr Pro Ala Leu Val  
 100 105 110

Phe Glu His Val Asn Asn Thr Asp Phe Lys Gln Leu Tyr Gln Thr Leu  
 115 120 125

Thr Asp Tyr Asp Ile Arg Phe Tyr Met Tyr Glu Ile Leu Lys Ala Leu  
 130 135 140

Asp Tyr Cys His Ser Met Gly Ile Met His Arg Asp Val Lys Pro His  
 145 150 155 160

Asn Val Met Ile Asp His Glu His Arg Lys Leu Arg Leu Ile Asp Trp  
 165 170 175

Gly Leu Ala Glu Phe Tyr His Pro Gly Gln Glu Tyr Asn Val Arg Val  
 180 185 190

Ala Ser Arg Tyr Phe Lys Gly Pro Glu Leu Leu Val Asp Tyr Gln Met  
 195 200 205

Tyr Asp Tyr Ser Leu Asp Met Trp Ser Leu Gly Cys Met Leu Ala Ser  
 210 215 220

Met Ile Phe Arg Lys Glu Pro Phe Phe His Gly His Asp Asn Tyr Asp  
 225 230 235 240

Gln Leu Val Arg Ile Ala Lys Val Leu Gly Thr Glu Asp Leu Tyr Asp  
 245 250 255

Tyr Ile Asp Lys Tyr Asn Ile Glu Leu Asp Pro Arg Phe Asn Asp Ile  
 260 265 270

Leu Gly Arg His Ser Arg Lys Arg Trp Glu Arg Phe Val His Ser Glu  
 275 280 285

Asn Gln His Leu Val Ser Pro Glu Ala Leu Asp Phe Leu Asp Lys Leu  
 290 295 300

Leu Arg Tyr Asp His Gln Ser Arg Leu Thr Ala Arg Glu Ala Met Glu  
 305 310 315 320

His Pro Tyr Phe Tyr Thr Val Val Lys Asp Gln Ala Arg Met Gly Ser  
 325 330 335

Ser Ser Met Pro Gly Gly Ser Thr Pro Val Ser Ser Ala Asn Met Met  
 340 345 350

Ser Gly Ile Ser Ser Val Pro Thr Pro Ser Pro Leu Gly Pro Leu Ala  
 355 360 365

Gly Ser Pro Val Ile Ala  
 370

<210> 63  
 <211> 303  
 <212> PRT  
 <213> Homo sapiens

<400> 63  
 Met Glu Ala Pro Gly Leu Ala Gln Ala Ala Ala Ala Glu Ser Asp Ser  
 1 5 10 15

Arg Lys Val Ala Glu Glu Thr Pro Asp Gly Ala Pro Ala Leu Cys Pro  
 20 25 30

Ser Pro Glu Ala Leu Ser Pro Glu Pro Pro Val Tyr Ser Leu Gln Asp  
 35 40 45

Phe Asp Thr Leu Ala Thr Val Gly Thr Gly Thr Phe Gly Arg Val His  
 50 55 60

Leu Val Lys Glu Lys Thr Ala Lys His Phe Phe Ala Leu Lys Val Met  
 65 70 75 80

Ser	Ile	Pro	Asp	Val	Val	Ile	Arg	Leu	Lys	Gln	Glu	Gln	His	Val	His	Asn
				85							90			95		
Glu	Lys	Ser	Val	Leu	Lys	Glu	Val	Ser	His	Pro	Phe	Leu	Ile	Arg	Leu	
			100						105			110				
Phe	Trp	Thr	Trp	His	Asp	Glu	Arg	Phe	Leu	Tyr	Met	Leu	Met	Glu	Tyr	
			115						120			125				
Val	Pro	Gly	Gly	Glu	Leu	Phe	Ser	Tyr	Leu	Arg	Asn	Arg	Gly	Arg	Phe	
			130			135						140				
Ser	Ser	Thr	Thr	Gly	Leu	Phe	Tyr	Ser	Ala	Glu	Ile	Ile	Cys	Ala	Ile	
145				150						155			160			
Glu	Tyr	Leu	His	Ser	Lys	Glu	Ile	Val	Tyr	Arg	Asp	Leu	Lys	Pro	Glu	
			165						170			175				
Asn	Ile	Leu	Leu	Asp	Arg	Asp	Gly	His	Ile	Lys	Leu	Thr	Asp	Phe	Gly	
			180			185						190				
Phe	Ala	Lys	Lys	Leu	Val	Asp	Arg	Thr	Trp	Thr	Leu	Cys	Gly	Thr	Pro	
			195			200						205				
Glu	Tyr	Leu	Ala	Pro	Glu	Val	Ile	Gln	Ser	Lys	Gly	His	Gly	Arg	Ala	
			210			215						220				
Val	Asp	Trp	Trp	Ala	Leu	Gly	Ile	Leu	Ile	Phe	Glu	Met	Leu	Ser	Gly	
225				230						235			240			
Phe	Pro	Pro	Phe	Phe	Asp	Asp	Asn	Pro	Phe	Gly	Ile	Tyr	Gln	Lys	Ile	
			245						250			255				
Leu	Ala	Gly	Lys	Ile	Asp	Phe	Pro	Arg	His	Leu	Asp	Phe	His	Val	Lys	
			260			265						270				
Asp	Leu	Ile	Lys	Lys	Leu	Leu	Val	Val	Asp	Arg	Thr	Arg	Arg	Leu	Gly	
			275			280						285				
Asn	Met	Lys	Asn	Gly	Ala	Asn	Asp	Val	Lys	His	His	Arg	Trp	Phe		
			290			295						300				
<210> 64																
<211> 460																
<212> PRT																
<213> Homo sapiens																
<400> 64																
Ile	Val	Leu	Val	Val	Ile	Trp	Lys	Gln	Lys	Pro	Arg	Tyr	Glu	Ile	Arg	
1		5						10						15		
Trp	Arg	Val	Ile	Glu	Ser	Ile	Ser	Pro	Asp	Gly	His	Glu	Tyr	Ile	Tyr	
			20						25			30				
Val	Asp	Pro	Met	Gln	Leu	Pro	Tyr	Asp	Ser	Arg	Trp	Glu	Phe	Pro	Arg	
			35			40						45				

Asp	Gly	Leu	Val	Leu	Gly	Arg	Val	Leu	Gly	Ser	Gly	Ala	Phe	Gly	Lys	50	55	60	
Val	Val	Glu	Gly	Thr	Ala	Tyr	Gly	Leu	Ser	Arg	Ser	Gln	Pro	Val	Met	65	70	75	80
Lys	Val	Ala	Val	Lys	Met	Leu	Lys	Pro	Thr	Ala	Arg	Ser	Ser	Glu	Lys	85	90	95	
Gln	Ala	Leu	Met	Ser	Glu	Leu	Lys	Ile	Met	Thr	His	Leu	Gly	Pro	His	100	105	110	
Leu	Asn	Ile	Val	Asn	Leu	Leu	Gly	Ala	Cys	Thr	Lys	Ser	Gly	Pro	Ile	115	120	125	
Tyr	Ile	Ile	Thr	Glu	Tyr	Cys	Phe	Tyr	Gly	Asp	Leu	Val	Asn	Tyr	Leu	130	135	140	
His	Lys	Asn	Arg	Asp	Ser	Phe	Leu	Ser	His	His	Pro	Glu	Lys	Pro	Lys	145	150	155	160
Lys	Glu	Leu	Asp	Ile	Phe	Gly	Leu	Asn	Pro	Ala	Asp	Glu	Ser	Thr	Arg	165	170	175	
Ser	Tyr	Val	Ile	Leu	Ser	Phe	Glu	Asn	Asn	Gly	Asp	Tyr	Met	Asp	Met	180	185	190	
Lys	Gln	Ala	Asp	Thr	Thr	Gln	Tyr	Val	Pro	Met	Leu	Glu	Arg	Lys	Glu	195	200	205	
Val	Ser	Lys	Tyr	Ser	Asp	Ile	Gln	Arg	Ser	Leu	Tyr	Asp	Arg	Pro	Ala	210	215	220	
Ser	Tyr	Lys	Lys	Lys	Ser	Met	Leu	Asp	Ser	Glu	Val	Lys	Asn	Leu	Leu	225	230	235	240
Ser	Asp	Asp	Asn	Ser	Glu	Gly	Leu	Thr	Leu	Leu	Asp	Leu	Leu	Ser	Phe	245	250	255	
Thr	Tyr	Gln	Val	Ala	Arg	Gly	Met	Glu	Phe	Leu	Ala	Ser	Lys	Asn	Cys	260	265	270	
Val	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	Val	Leu	Leu	Ala	Gln	Gly	Lys	275	280	285	
Ile	Val	Lys	Ile	Cys	Asp	Phe	Gly	Leu	Ala	Arg	Asp	Ile	Met	His	Asp	290	295	300	
Ser	Asn	Tyr	Val	Ser	Lys	Gly	Ser	Thr	Phe	Leu	Pro	Val	Lys	Trp	Met	305	310	315	320
Ala	Pro	Glu	Ser	Ile	Phe	Asp	Asn	Leu	Tyr	Thr	Thr	Leu	Ser	Asp	Val	325	330	335	
Trp	Ser	Tyr	Gly	Ile	Leu	Leu	Trp	Glu	Ile	Phe	Ser	Leu	Gly	Gly	Thr	340	345	350	

Pro Tyr Pro Gly Met Met Val Asp Ser Thr Phe Tyr Asn Lys Ile Lys  
 355 360 365

Ser Gly Tyr Arg Met Ala Lys Pro Asp His Ala Thr Ser Glu Val Tyr  
 370 375 380

Glu Ile Met Val Lys Cys Trp Asn Ser Glu Pro Glu Lys Arg Pro Ser  
 385 390 395 400

Phe Tyr His Leu Ser Glu Ile Val Glu Asn Leu Leu Pro Gly Gln Tyr  
 405 410 415

Lys Lys Ser Tyr Glu Lys Ile His Leu Asp Phe Leu Lys Ser Asp His  
 420 425 430

Pro Ala Val Ala Arg Met Arg Val Asp Ser Asp Asn Ala Tyr Ile Gly  
 435 440 445

Val Thr Tyr Lys Asn Glu Glu Asp Lys Leu Lys Asp  
 450 455 460

<210> 65

<211> 289

<212> PRT

<213> Homo sapiens

<400> 65

Val Ser Asn Lys Ala Tyr Glu Asp Ala Glu Ala Lys Ala Lys Tyr Glu  
 1 5 10 15

Ala Glu Ala Ala Phe Phe Ala Asn Leu Lys Leu Ser Asp Phe Asn Ile  
 20 25 30

Ile Asp Thr Leu Gly Val Gly Gly Phe Gly Arg Val Glu Leu Val Gln  
 35 40 45

Leu Lys Ser Glu Glu Ser Lys Thr Phe Ala Met Lys Ile Leu Lys Lys  
 50 55 60

Arg His Ile Val Asp Thr Arg Gln Gln Glu His Ile Arg Ser Glu Lys  
 65 70 75 80

Gln Ile Met Gln Gly Ala His Ser Asp Phe Ile Val Arg Leu Tyr Arg  
 85 90 95

Thr Phe Lys Asp Ser Lys Tyr Leu Tyr Met Leu Met Glu Ala Cys Leu  
 100 105 110

Gly Gly Glu Leu Trp Thr Ile Leu Arg Asp Arg Gly Ser Phe Glu Asp  
 115 120 125

Ser Thr Thr Arg Phe Tyr Thr Ala Cys Val Val Glu Ala Phe Ala Tyr  
 130 135 140

Leu His Ser Lys Gly Ile Ile Tyr Arg Asp Leu Lys Pro Glu Asn Leu  
 145 150 155 160



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<210> 66
<211> 297
<212> PRT
<213> Homo sapiens
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<211> 297

<212> PRT

<213> Homo sapiens

<400> 66

Gln	His	Asn	Ser	Ala	Gly	Leu	Ile	Ser	Arg	Leu	Lys	Tyr	Pro	Val	Ser
1				5					10					15	
Gln	Gln	Asn	Lys	Asn	Ala	Pro	Ser	Thr	Ala	Gly	Leu	Gly	Tyr	Gly	Ser
			20					25					30		
Trp	Glu	Ile	Asp	Pro	Lys	Asp	Leu	Thr	Phe	Leu	Lys	Glu	Leu	Gly	Thr
		35					40					45			
Gly	Gln	Phe	Gly	Val	Val	Lys	Tyr	Gly	Lys	Trp	Arg	Gly	Gln	Tyr	Asp
	50					55					60				
Val	Ala	Ile	Lys	Met	Ile	Lys	Glu	Gly	Ser	Met	Ser	Glu	Asp	Glu	Phe
65					70					75					80
Ile	Glu	Glu	Ala	Lys	Val	Met	Met	Asn	Leu	Ser	His	Glu	Lys	Leu	Val
				85					90					95	
Gln	Leu	Tyr	Gly	Val	Cys	Thr	Lys	Gln	Arg	Pro	Ile	Phe	Ile	Ile	Thr
			100					105					110		
Glu	Tyr	Met	Ala	Asn	Gly	Cys	Leu	Leu	Asn	Tyr	Leu	Arg	Glu	Met	Arg
		115					120					125			

His Arg Phe Gln Thr Gln Gln Leu Leu Glu Met Cys Lys Asp Val Cys  
 130 135 140  
 Glu Ala Met Glu Tyr Leu Glu Ser Lys Gln Phe Leu His Arg Asp Leu  
 145 150 155 160  
 Ala Ala Arg Asn Cys Leu Val Asn Asp Gln Gly Val Val Lys Val Ser  
 165 170 175  
 Asp Phe Gly Leu Ser Arg Tyr Val Leu Asp Asp Glu Tyr Thr Ser Ser  
 180 185 190  
 Val Gly Ser Lys Phe Pro Val Arg Trp Ser Pro Pro Glu Val Leu Met  
 195 200 205  
 Tyr Ser Lys Phe Ser Ser Lys Ser Asp Ile Trp Ala Phe Gly Val Leu  
 210 215 220  
 Met Trp Glu Ile Tyr Ser Leu Gly Lys Met Pro Tyr Glu Arg Phe Thr  
 225 230 235 240  
 Asn Ser Glu Thr Ala Glu His Ile Ala Gln Gly Leu Arg Leu Tyr Arg  
 245 250 255  
 Pro His Leu Ala Ser Glu Lys Val Tyr Thr Ile Met Tyr Ser Cys Trp  
 260 265 270  
 His Glu Lys Ala Asp Glu Arg Pro Thr Phe Lys Ile Leu Leu Ser Asn  
 275 280 285  
 Ile Leu Asp Val Met Asp Glu Glu Ser  
 290 295

<210> 67  
 <211> 384  
 <212> PRT  
 <213> Homo sapiens

<400> 67  
 Met Thr Phe Arg Arg Pro Ala Gln Ala Phe Pro Val Ser Tyr Ser Ser  
 1 5 10 15  
 Ser Gly Ala Arg Arg Pro Ser Leu Asp Ser Met Glu Asn Gln Val Ser  
 20 25 30  
 Val Asp Ala Phe Lys Ile Leu Glu Asp Pro Lys Trp Glu Phe Pro Arg  
 35 40 45  
 Lys Asn Leu Val Leu Gly Lys Thr Leu Gly Glu Gly Glu Phe Gly Lys  
 50 55 60  
 Val Val Lys Ala Thr Ala Phe His Leu Lys Gly Arg Ala Gly Tyr Thr  
 65 70 75 80  
 Thr Val Ala Val Lys Met Leu Lys Glu Asn Ala Ser Pro Ser Glu Leu  
 85 90 95

Arg	Asp	Leu	Leu	Ser	Glu	Phe	Asn	Val	Leu	Lys	Gln	Val	Asn	His	Pro	100	105	110	
His	Val	Ile	Lys	Leu	Tyr	Gly	Ala	Cys	Ser	Gln	Asp	Gly	Pro	Leu	Leu	115	120	125	
Leu	Ile	Val	Glu	Tyr	Ala	Lys	Tyr	Gly	Ser	Leu	Arg	Gly	Phe	Leu	Arg	130	135	140	
Glu	Ser	Arg	Lys	Val	Gly	Pro	Gly	Tyr	Leu	Gly	Ser	Gly	Gly	Ser	Arg	145	150	155	160
Asn	Ser	Ser	Ser	Leu	Asp	His	Pro	Asp	Glu	Arg	Ala	Leu	Thr	Met	Gly	165	170	175	
Asp	Leu	Ile	Ser	Phe	Ala	Trp	Gln	Ile	Ser	Gln	Gly	Met	Gln	Tyr	Leu	180	185	190	
Ala	Glu	Met	Lys	Leu	Val	His	Arg	Asp	Leu	Ala	Ala	Arg	Asn	Ile	Leu	195	200	205	
Val	Ala	Glu	Gly	Arg	Lys	Met	Lys	Ile	Ser	Asp	Phe	Gly	Leu	Ser	Arg	210	215	220	
Asp	Val	Tyr	Glu	Glu	Asp	Ser	Tyr	Val	Lys	Arg	Ser	Gln	Gly	Arg	Ile	225	230	235	240
Pro	Val	Lys	Trp	Met	Ala	Ile	Glu	Ser	Leu	Phe	Asp	His	Ile	Tyr	Thr	245	250	255	
Thr	Gln	Ser	Asp	Val	Trp	Ser	Phe	Gly	Val	Leu	Leu	Trp	Glu	Ile	Val	260	265	270	
Thr	Leu	Gly	Gly	Asn	Pro	Tyr	Pro	Gly	Ile	Pro	Pro	Glu	Arg	Leu	Phe	275	280	285	
Asn	Leu	Leu	Lys	Thr	Gly	His	Arg	Met	Glu	Arg	Pro	Asp	Asn	Cys	Ser	290	295	300	
Glu	Glu	Met	Tyr	Arg	Leu	Met	Leu	Gln	Cys	Trp	Lys	Gln	Glu	Pro	Asp	305	310	315	320
Lys	Arg	Pro	Val	Phe	Ala	Asp	Ile	Ser	Lys	Asp	Leu	Glu	Lys	Met	Met	325	330	335	
Val	Lys	Arg	Arg	Asp	Tyr	Leu	Asp	Leu	Ala	Ala	Ser	Thr	Pro	Ser	Asp	340	345	350	
Ser	Leu	Ile	Tyr	Asp	Asp	Gly	Leu	Ser	Glu	Glu	Glu	Thr	Pro	Leu	Val	355	360	365	
Asp	Cys	Asn	Asn	Ala	Pro	Leu	Pro	Arg	Ala	Leu	Pro	Ser	Thr	Trp	Ile	370	375	380	

<210> 68  
 <211> 373  
 <212> PRT  
 <213> Homo sapiens

<400> 68  
 Gly Val Thr Val Leu Ile Asn Glu Asp Lys Glu Leu Ala Glu Leu Arg  
     1                    5                    10                    15  
 Gly Leu Ala Ala Gly Val Gly Leu Ala Asn Ala Cys Tyr Ala Ile His  
             20                    25                    30  
 Thr Leu Pro Thr Gln Glu Glu Ile Glu Asn Leu Pro Ala Phe Pro Arg  
             35                    40                    45  
 Glu Lys Leu Thr Leu Arg Leu Leu Leu Gly Ser Gly Ala Phe Gly Glu  
             50                    55                    60  
 Val Tyr Glu Gly Thr Ala Val Asp Ile Leu Gly Val Gly Ser Gly Glu  
             65                    70                    75                    80  
 Ile Lys Val Ala Val Lys Thr Leu Lys Lys Gly Ser Thr Asp Gln Glu  
                     85                    90                    95  
 Lys Ile Glu Phe Leu Lys Glu Ala His Leu Met Ser Lys Phe Asn His  
                     100                    105                    110  
 Pro Asn Ile Leu Lys Gln Leu Gly Val Cys Leu Leu Asn Glu Pro Gln  
             115                    120                    125  
 Tyr Ile Ile Leu Glu Leu Met Glu Gly Gly Asp Leu Leu Thr Tyr Leu  
             130                    135                    140  
 Arg Lys Ala Arg Met Ala Thr Phe Tyr Gly Pro Leu Leu Thr Leu Val  
             145                    150                    155                    160  
 Asp Leu Val Asp Leu Cys Val Asp Ile Ser Lys Gly Cys Val Tyr Leu  
                     165                    170                    175  
 Glu Arg Met His Phe Ile His Arg Asp Leu Ala Ala Arg Asn Cys Leu  
                     180                    185                    190  
 Val Ser Val Lys Asp Tyr Thr Ser Pro Arg Ile Val Lys Ile Gly Asp  
             195                    200                    205  
 Phe Gly Leu Ala Arg Asp Ile Tyr Lys Asn Asp Tyr Tyr Arg Lys Arg  
             210                    215                    220  
 Gly Glu Gly Leu Leu Pro Val Arg Trp Met Ala Pro Glu Ser Leu Met  
             225                    230                    235                    240  
 Asp Gly Ile Phe Thr Thr Gln Ser Asp Val Trp Ser Phe Gly Ile Leu  
                     245                    250                    255  
 Ile Trp Glu Ile Leu Thr Leu Gly His Gln Pro Tyr Pro Ala His Ser  
             260                    265                    270

Asn Leu Asp Val Leu Asn Tyr Val Gln Thr Gly Gly Arg Leu Glu Pro  
 275 280 285

Pro Arg Asn Cys Pro Asp Asp Leu Trp Asn Leu Met Thr Gln Cys Trp  
 290 295 300

Ala Gln Glu Pro Asp Gln Arg Pro Thr Phe His Arg Ile Gln Asp Gln  
 305 310 315 320

Leu Gln Leu Phe Arg Asn Phe Phe Leu Asn Ser Ile Tyr Lys Ser Arg  
 325 330 335

Asp Glu Ala Asn Asn Ser Gly Val Ile Asn Glu Ser Phe Glu Gly Glu  
 340 345 350

Asp Gly Asp Val Ile Cys Leu Asn Ser Asp Asp Ile Met Pro Val Val  
 355 360 365

Leu Met Glu Thr Lys  
 370

<210> 69

<211> 292

<212> PRT

<213> Homo sapiens

<400> 69

Leu Ser Thr Gln Gln Pro Leu Thr Lys Lys Ser Gly Val Val Leu His  
 1 5 10 15

Arg Ala Val Pro Lys Asp Lys Trp Val Leu Asn His Glu Asp Leu Val  
 20 25 30

Leu Gly Glu Gln Ile Gly Arg Gly Asn Phe Gly Glu Val Phe Ser Gly  
 35 40 45

Arg Leu Arg Ala Asp Asn Thr Leu Val Ala Val Lys Ser Cys Arg Glu  
 50 55 60

Thr Leu Pro Pro Asp Leu Lys Ala Lys Phe Leu Gln Glu Ala Arg Ile  
 65 70 75 80

Leu Lys Gln Tyr Ser His Pro Asn Ile Val Arg Leu Ile Gly Val Cys  
 85 90 95

Thr Gln Lys Gln Pro Ile Tyr Ile Val Met Glu Leu Val Gln Gly Gly  
 100 105 110

Asp Phe Leu Thr Phe Leu Arg Thr Glu Gly Ala Arg Leu Arg Val Lys  
 115 120 125

Thr Leu Leu Gln Met Val Gly Asp Ala Ala Ala Gly Met Glu Tyr Leu  
 130 135 140

Glu Ser Lys Cys Cys Ile His Arg Asp Leu Ala Ala Arg Asn Cys Leu  
 145 150 155 160

Val Thr Glu Lys Asn Val Leu Lys Ile Ser Asp Phe Gly Met Ser Arg  
165 170 175

Glu Glu Ala Asp Gly Val Tyr Ala Ala Ser Gly Gly Ser Arg Gln Val  
180 185 190

Pro Val Lys Trp Thr Ala Pro Glu Ala Leu Asn Tyr Gly Arg Tyr Ser  
195 200 205

Ser Glu Ser Asp Val Trp Ser Phe Gly Ile Leu Leu Trp Glu Thr Phe  
210 215 220

Ser Leu Gly Ala Ser Pro Tyr Pro Asn Leu Ser Asn Gln Gln Thr Arg  
225 230 235 240

Glu Phe Val Glu Lys Gly Gly Arg Leu Pro Cys Pro Glu Leu Cys Pro  
245 250 255

Asp Ala Val Phe Arg Leu Met Glu Gln Cys Trp Ala Tyr Glu Pro Gly  
260 265 270

Gln Arg Pro Ser Phe Ser Thr Ile Tyr Gln Glu Leu Gln Ser Ile Arg  
275 280 285

Lys Arg His Arg  
290

$\langle 210 \rangle$  70

<211> 370

<212> PRT

<213> Homo sapiens

<400> 70

Leu Gln Ala Met Gln Met Glu Leu Gln Ser Pro Glu Tyr Lys Leu Ser  
1 5 10 15

Lys Leu Arg Thr Ser Thr Ile Met Thr Asp Tyr Asn Pro Asn Tyr Cys  
20 25 30

Phe Ala Gly Lys Thr Ser Ser Ile Ser Asp Leu Lys Glu Val Pro Arg  
35 40 45

Lys Asn Ile Thr Leu Ile Arg Gly Leu Gly His Gly Ala Phe Gly Glu  
50 55 60

Val Tyr Glu Gly Gln Val Ser Gly Met Pro Asn Asp Pro Ser Pro Leu  
65 70 75 80

Gln Val Ala Val Lys Thr Leu Pro Glu Val Cys Ser Glu Gln Asp Glu  
85 90 95

Leu Asp Phe Leu Met Glu Ala Leu Ile Ile Ser Lys Phe Asn His Gln  
100 105 110

Asn Ile Val Arg Cys Ile Gly Val Ser Leu Gln Ser Leu Pro Arg Phe  
115 120 125

Ile Leu Leu Glu Leu Met Ala Gly Gly Asp Leu Lys Ser Phe Leu Arg  
 130 135 140  
 Glu Thr Arg Pro Arg Pro Ser Gln Pro Ser Ser Leu Ala Met Leu Asp  
 145 150 155 160  
 Leu Leu His Val Ala Arg Asp Ile Ala Cys Gly Cys Gln Tyr Leu Glu  
 165 170 175  
 Glu Asn His Phe Ile His Arg Asp Ile Ala Ala Arg Asn Cys Leu Leu  
 180 185 190  
 Thr Cys Pro Gly Pro Gly Arg Val Ala Lys Ile Gly Asp Phe Gly Met  
 195 200 205  
 Ala Arg Asp Ile Tyr Arg Ala Ser Tyr Tyr Arg Lys Gly Gly Cys Ala  
 210 215 220  
 Met Leu Pro Val Lys Trp Met Pro Pro Glu Ala Phe Met Glu Gly Ile  
 225 230 235 240  
 Phe Thr Ser Lys Thr Asp Thr Trp Ser Phe Gly Val Leu Leu Trp Glu  
 245 250 255  
 Ile Phe Ser Leu Gly Tyr Met Pro Tyr Pro Ser Lys Ser Asn Gln Glu  
 260 265 270  
 Val Leu Glu Phe Val Thr Ser Gly Gly Arg Met Asp Pro Pro Lys Asn  
 275 280 285  
 Cys Pro Gly Pro Val Tyr Arg Ile Met Thr Gln Cys Trp Gln His Gln  
 290 295 300  
 Pro Glu Asp Arg Pro Asn Phe Ala Ile Ile Leu Glu Arg Ile Glu Tyr  
 305 310 315 320  
 Cys Thr Gln Asp Pro Asp Val Ile Asn Thr Ala Leu Pro Ile Glu Tyr  
 325 330 335  
 Gly Pro Leu Val Glu Glu Glu Glu Lys Val Pro Val Arg Pro Lys Asp  
 340 345 350  
 Pro Glu Gly Val Pro Pro Leu Leu Val Ser Gln Gln Ala Lys Arg Glu  
 355 360 365  
 Glu Glu  
 370  
 <210> 71  
 <211> 345  
 <212> PRT  
 <213> Homo sapiens  
 <400> 71  
 Met Ala Leu Asp Val Lys Ser Arg Ala Lys Arg Tyr Glu Lys Leu Asp  
 1 5 10 15

Phe Leu Gly Glu Gly Gln Phe Ala Thr Val Tyr Lys Ala Arg Asp Lys  
                   20                                  25                                  30

Asn Thr Asn Gln Ile Val Ala Ile Lys Lys Ile Lys Leu Gly His Arg  
                   35                                  40                                  45

Ser Glu Ala Lys Asp Gly Ile Asn Arg Thr Ala Leu Arg Glu Ile Lys  
                   50                                  55                                  60

Leu Leu Gln Glu Leu Ser His Pro Asn Ile Ile Gly Leu Leu Asp Ala  
                   65                                  70                                  75                                  80

Phe Gly His Lys Ser Asn Ile Ser Leu Val Phe Asp Phe Met Glu Thr  
                                   85                                  90                                  95

Asp Leu Glu Val Ile Ile Lys Asp Asn Ser Leu Val Leu Thr Pro Ser  
                                   100                                  105                                  110

His Ile Lys Ala Tyr Met Leu Met Thr Leu Gln Gly Leu Glu Tyr Leu  
                   115                                  120                                  125

His Gln His Trp Ile Leu His Arg Asp Leu Lys Pro Asn Asn Leu Leu  
                   130                                  135                                  140

Leu Asp Glu Asn Gly Val Leu Lys Leu Ala Asp Phe Gly Leu Ala Lys  
                   145                                  150                                  155                                  160

Ser Phe Gly Ser Pro Asn Arg Ala Tyr Thr His Gln Val Val Thr Arg  
                                   165                                  170                                  175

Trp Tyr Arg Ala Pro Glu Leu Leu Phe Gly Ala Arg Met Tyr Gly Val  
                                   180                                  185                                  190

Gly Val Asp Met Trp Ala Val Gly Cys Ile Leu Ala Glu Leu Leu Leu  
                   195                                  200                                  205

Arg Val Pro Phe Leu Pro Gly Asp Ser Asp Leu Asp Gln Leu Thr Arg  
                   210                                  215                                  220

Ile Phe Glu Thr Leu Gly Thr Pro Thr Glu Glu Gln Trp Pro Asp Met  
                   225                                  230                                  235                                  240

Cys Ser Leu Pro Asp Tyr Val Thr Phe Lys Ser Phe Pro Gly Ile Pro  
                                   245                                  250                                  255

Leu His His Ile Phe Ser Ala Ala Gly Asp Asp Leu Leu Asp Leu Ile  
                                   260                                  265                                  270

Gln Gly Leu Phe Leu Phe Asn Pro Cys Ala Arg Ile Thr Ala Thr Gln  
                   275                                  280                                  285

Ala Leu Lys Met Lys Tyr Phe Ser Asn Arg Pro Gly Pro Thr Pro Gly  
                   290                                  295                                  300

Cys Gln Leu Pro Arg Pro Asn Cys Pro Val Glu Thr Leu Lys Glu Gln  
                   305                                  310                                  315                                  320



Ser Asn Pro Ala Leu Ala Ile Lys Arg Lys Arg Thr Glu Ala Leu Glu  
                                   325                                  330                                  335

Gln Gly Gly Leu Pro Lys Lys Leu Ile  
                                   340                                  345

<210> 72

<211> 360

<212> PRT

<213> Homo sapiens

<400> 72

Met Ala Glu Pro Asp Leu Glu Cys Glu Gln Ile Arg Leu Lys Cys Ile  
   1                                  5                                  10                                  15

Arg Lys Glu Gly Phe Phe Thr Val Pro Pro Glu His Arg Leu Gly Arg  
                                   20                                  25                                  30

Cys Arg Ser Val Lys Glu Phe Glu Lys Leu Asn Arg Ile Gly Glu Gly  
                                   35                                  40                                  45

Thr Tyr Gly Ile Val Tyr Arg Ala Arg Asp Thr Gln Thr Asp Glu Ile  
                                   50                                  55                                  60

Val Ala Leu Lys Lys Val Arg Met Asp Lys Glu Lys Asp Gly Ile Pro  
   65                                  70                                  75                                  80

Ile Ser Ser Leu Arg Glu Ile Thr Leu Leu Arg Leu Arg His Pro  
                                   85                                  90                                  95

Asn Ile Val Glu Leu Lys Glu Val Val Val Gly Asn His Leu Glu Ser  
                                   100                                  105                                  110

Ile Phe Leu Val Met Gly Tyr Cys Glu Gln Asp Leu Ala Ser Leu Leu  
                                   115                                  120                                  125

Glu Asn Met Pro Thr Pro Phe Ser Glu Ala Gln Val Lys Cys Ile Val  
                                   130                                  135                                  140

Leu Gln Val Leu Arg Gly Leu Gln Tyr Leu His Arg Asn Phe Ile Ile  
   145                                  150                                  155                                  160

His Arg Asp Leu Lys Val Ser Asn Leu Leu Met Thr Asp Lys Gly Cys  
                                   165                                  170                                  175

Val Lys Thr Ala Asp Phe Gly Leu Ala Arg Ala Tyr Gly Val Pro Val  
                                   180                                  185                                  190

Lys Pro Met Thr Pro Lys Val Val Thr Leu Trp Tyr Arg Ala Pro Glu  
                                   195                                  200                                  205

Leu Leu Leu Gly Thr Thr Thr Gln Thr Thr Ser Ile Asp Met Trp Ala  
   210                                  215                                  220

Val Gly Cys Ile Leu Ala Glu Leu Leu Ala His Arg Pro Leu Leu Pro  
   225                                  230                                  235                                  240

Gly Thr Ser Glu Ile His Gln Ile Asp Leu Ile Val Gln Leu Leu Gly  
                                   245                                  250                                  255

Thr Pro Ser Glu Asn Ile Trp Pro Gly Phe Ser Lys Leu Pro Leu Val  
                                   260                                  265                                  270

Gly Gln Tyr Ser Leu Arg Lys Gln Pro Tyr Asn Asn Leu Lys His Lys  
                                   275                                  280                                  285

Phe Pro Trp Leu Ser Glu Ala Gly Leu Arg Leu Leu His Phe Leu Phe  
                                   290                                  295                                  300

Met Tyr Asp Pro Lys Lys Arg Ala Thr Ala Gly Asp Cys Leu Glu Ser  
                                   305                                  310                                  315                                  320

Ser Tyr Phe Lys Glu Lys Pro Leu Pro Cys Glu Pro Glu Leu Met Pro  
                                   325                                  330                                  335

Thr Phe Pro His His Arg Asn Lys Arg Ala Ala Pro Ala Thr Ser Glu  
                                   340                                  345                                  350

Gly Gln Ser Lys Arg Cys Lys Pro  
                                   355                                  360

<210> 73

<211> 296

<212> PRT

<213> Homo sapiens

<400> 73

Arg Ala Gln Ser Leu Ser His Gly Leu Arg Leu Ala Ala Pro Cys Arg  
                                   1                                  5                                  10                                  15

Lys His Glu Pro Glu Pro Leu Pro His Trp Asp Asp Trp Glu Arg Pro  
                                   20                                  25                                  30

Arg Glu Glu Phe Thr Leu Cys Arg Lys Leu Gly Ser Gly Tyr Phe Gly  
                                   35                                  40                                  45

Glu Val Phe Glu Gly Leu Trp Lys Asp Arg Val Gln Val Ala Ile Lys  
                                   50                                  55                                  60

Val Ile Ser Arg Asp Asn Leu Leu His Gln Gln Met Leu Gln Ser Glu  
                                   65                                  70                                  75                                  80

Ile Gln Ala Met Lys Lys Leu Arg His Lys His Ile Leu Ala Leu Tyr  
                                   85                                  90                                  95

Ala Val Val Ser Val Gly Asp Pro Val Tyr Ile Ile Thr Glu Leu Met  
                                   100                                  105                                  110

Ala Lys Gly Ser Leu Leu Glu Leu Leu Arg Asp Ser Asp Glu Lys Val  
                                   115                                  120                                  125

Leu Pro Val Ser Glu Leu Leu Asp Ile Ala Trp Gln Val Ala Glu Gly  
                                   130                                  135                                  140

Met Cys Tyr Leu Glu Ser Gln Asn Tyr Ile His Arg Asp Leu Ala Ala  
 145 150 155 160

Arg Asn Ile Leu Val Gly Glu Asn Thr Leu Cys Lys Val Gly Asp Phe  
 165 170 175

Gly Leu Ala Arg Leu Ile Lys Glu Asp Val Tyr Leu Ser His Asp His  
 180 185 190

Asn Ile Pro Tyr Lys Trp Thr Ala Pro Glu Ala Leu Ser Arg Gly His  
 195 200 205

Tyr Ser Thr Lys Ser Asp Val Trp Ser Phe Gly Ile Leu Leu His Glu  
 210 215 220

Met Phe Ser Arg Gly Gln Val Pro Tyr Pro Gly Met Ser Asn His Glu  
 225 230 235 240

Ala Phe Leu Arg Val Asp Ala Gly Tyr Arg Met Pro Cys Pro Leu Glu  
 245 250 255

Cys Pro Pro Ser Val His Lys Leu Met Leu Thr Cys Trp Cys Arg Asp  
 260 265 270

Pro Glu Gln Arg Pro Cys Phe Lys Ala Leu Arg Glu Arg Leu Ser Ser  
 275 280 285

Phe Thr Ser Tyr Glu Asn Pro Thr  
 290 295

<210> 74

<211> 321

<212> PRT

<213> Homo sapiens

<400> 74

Met Ala Thr Ile Thr Cys Thr Arg Phe Thr Glu Glu Tyr Gln Leu Phe  
 1 5 10 15

Glu Glu Leu Gly Lys Gly Ala Phe Ser Val Val Arg Arg Cys Val Lys  
 20 25 30

Val Leu Ala Gly Gln Glu Tyr Ala Ala Lys Ile Ile Asn Thr Lys Lys  
 35 40 45

Leu Ser Ala Arg Asp His Gln Lys Leu Glu Arg Glu Ala Arg Ile Cys  
 50 55 60

Arg Leu Leu Lys His Pro Asn Ile Val Arg Leu His Asp Ser Ile Ser  
 65 70 75 80

Glu Glu Gly His His Tyr Leu Ile Phe Asp Leu Val Thr Gly Gly Glu  
 85 90 95

Leu Phe Glu Asp Ile Val Ala Arg Glu Tyr Tyr Ser Glu Ala Asp Ala  
 100 105 110

Ser His Cys Ile Gln Gln Ile Leu Glu Ala Val Leu His Cys His Gln  
           115                                  120                                  125  
 Met Gly Val Val His Arg Asp Leu Lys Pro Glu Asn Leu Leu Leu Ala  
           130                                  135                                  140  
 Ser Lys Leu Lys Gly Ala Ala Val Lys Leu Ala Asp Phe Gly Leu Ala  
           145                                  150                                  155                                  160  
 Ile Glu Val Glu Gly Glu Gln Gln Ala Trp Phe Gly Phe Ala Gly Thr  
                                   165                                  170                                  175  
 Pro Gly Tyr Leu Ser Pro Glu Val Leu Arg Lys Asp Pro Tyr Gly Lys  
                                   180                                  185                                  190  
 Pro Val Asp Leu Trp Ala Cys Gly Val Ile Leu Tyr Ile Leu Leu Val  
           195                                  200                                  205  
 Gly Tyr Pro Pro Phe Trp Asp Glu Asp Gln His Arg Leu Tyr Gln Gln  
           210                                  215                                  220  
 Ile Lys Ala Gly Ala Tyr Asp Phe Pro Ser Pro Glu Trp Asp Thr Val  
           225                                  230                                  235                                  240  
 Thr Pro Glu Ala Lys Asp Leu Ile Asn Lys Met Leu Thr Ile Asn Pro  
                                   245                                  250                                  255  
 Ser Lys Arg Ile Thr Ala Ala Glu Ala Leu Lys His Pro Trp Ile Ser  
                                   260                                  265                                  270  
 His Arg Ser Thr Val Ala Ser Cys Met His Arg Gln Glu Thr Val Asp  
           275                                  280                                  285  
 Cys Leu Lys Lys Phe Asn Ala Arg Arg Lys Leu Lys Gly Ala Ile Leu  
           290                                  295                                  300  
 Thr Thr Met Leu Ala Thr Arg Asn Phe Ser Gly Gly Lys Ser Gly Gly  
           305                                  310                                  315                                  320

Asn

<210> 75

<211> 365

<212> PRT

<213> Homo sapiens

<400> 75

Met Ala Lys Gln Tyr Asp Ser Val Glu Cys Pro Phe Cys Asp Glu Val  
       1                                  5                                  10                                  15  
 Ser Lys Tyr Glu Lys Leu Ala Lys Ile Gly Gln Gly Thr Phe Gly Glu  
           20                                  25                                  30  
 Val Phe Lys Ala Arg His Arg Lys Thr Gly Gln Lys Val Ala Leu Lys  
           35                                  40                                  45

Lys	Val	Leu	Met	Glu	Asn	Glu	Lys	Glu	Gly	Phe	Pro	Ile	Thr	Ala	Leu	50	55	60	
Arg	Glu	Ile	Lys	Ile	Leu	Gln	Leu	Leu	Lys	His	Glu	Asn	Val	Val	Asn	65	70	75	80
Leu	Ile	Glu	Ile	Cys	Arg	Thr	Lys	Ala	Ser	Pro	Tyr	Asn	Arg	Cys	Lys	85	90	95	
Gly	Ser	Ile	Tyr	Leu	Val	Phe	Asp	Phe	Cys	Glu	His	Asp	Leu	Ala	Gly	100	105	110	
Leu	Leu	Ser	Asn	Val	Leu	Val	Lys	Phe	Thr	Leu	Ser	Glu	Ile	Lys	Arg	115	120	125	
Val	Met	Gln	Met	Leu	Leu	Asn	Gly	Leu	Tyr	Tyr	Ile	His	Arg	Asn	Lys	130	135	140	
Ile	Leu	His	Arg	Asp	Met	Lys	Ala	Ala	Asn	Val	Leu	Ile	Thr	Arg	Asp	145	150	155	160
Gly	Val	Leu	Lys	Leu	Ala	Asp	Phe	Gly	Leu	Ala	Arg	Ala	Phe	Ser	Leu	165	170	175	
Ala	Lys	Asn	Ser	Gln	Pro	Asn	Arg	Tyr	Thr	Asn	Arg	Val	Val	Thr	Leu	180	185	190	
Trp	Tyr	Arg	Pro	Pro	Glu	Leu	Leu	Leu	Gly	Glu	Arg	Asp	Tyr	Gly	Pro	195	200	205	
Pro	Ile	Asp	Leu	Trp	Gly	Ala	Gly	Cys	Ile	Met	Ala	Glu	Met	Trp	Thr	210	215	220	
Arg	Ser	Pro	Ile	Met	Gln	Ala	Asn	Thr	Glu	Gln	His	Gln	Leu	Ala	Leu	225	230	235	240
Ile	Ser	Gln	Leu	Cys	Gly	Ser	Ile	Thr	Pro	Glu	Val	Trp	Pro	Asn	Val	245	250	255	
Asp	Asn	Tyr	Glu	Leu	Tyr	Glu	Lys	Leu	Glu	Leu	Val	Lys	Gly	Gln	Lys	260	265	270	
Arg	Lys	Val	Lys	Asp	Arg	Leu	Lys	Ala	Tyr	Val	Arg	Asp	Pro	Tyr	Ala	275	280	285	
Leu	Asp	Leu	Ile	Asp	Lys	Leu	Leu	Val	Leu	Asp	Pro	Ala	Gln	Arg	Ile	290	295	300	
Asp	Ser	Asp	Asp	Ala	Leu	Asn	His	Asp	Phe	Phe	Trp	Ser	Asp	Pro	Met	305	310	315	320
Pro	Ser	Asp	Leu	Lys	Gly	Met	Leu	Ser	Thr	His	Leu	Thr	Ser	Met	Phe	325	330	335	
Glu	Tyr	Leu	Ala	Pro	Pro	Arg	Arg	Lys	Gly	Ser	Gln	Ile	Thr	Gln	Gln	340	345	350	

Ser Thr Asn Gln Ser Arg Asn Pro Ala Thr Thr Asn Gln  
 355 360 365

<210> 76  
 <211> 324  
 <212> PRT  
 <213> Homo sapiens

<400> 76  
 Met Ala His Ser Pro Val Gln Ser Gly Leu Pro Gly Met Gln Asn Leu  
 1 5 10 15  
 Lys Ala Asp Pro Glu Glu Leu Phe Thr Lys Leu Glu Lys Ile Gly Lys  
 20 25 30  
 Gly Ser Phe Gly Glu Val Phe Lys Gly Ile Asp Asn Arg Thr Gln Lys  
 35 40 45  
 Val Val Ala Ile Lys Ile Ile Asp Leu Glu Glu Ala Glu Asp Glu Ile  
 50 55 60  
 Glu Asp Ile Gln Gln Glu Ile Thr Val Leu Ser Gln Cys Asp Ser Pro  
 65 70 75 80  
 Tyr Val Thr Lys Tyr Tyr Gly Ser Tyr Leu Lys Asp Thr Lys Leu Trp  
 85 90 95  
 Ile Ile Met Glu Tyr Leu Gly Gly Gly Ser Ala Leu Asp Leu Leu Glu  
 100 105 110  
 Pro Gly Pro Leu Asp Glu Thr Gln Ile Ala Thr Ile Leu Arg Glu Ile  
 115 120 125  
 Leu Lys Gly Leu Asp Tyr Leu His Ser Glu Lys Lys Ile His Arg Asp  
 130 135 140  
 Ile Lys Ala Ala Asn Val Leu Leu Ser Glu His Gly Glu Val Lys Leu  
 145 150 155 160  
 Ala Asp Phe Gly Val Ala Gly Gln Leu Thr Asp Thr Gln Ile Lys Arg  
 165 170 175  
 Asn Thr Phe Val Gly Thr Pro Phe Trp Met Ala Pro Glu Val Ile Lys  
 180 185 190  
 Gln Ser Ala Tyr Asp Ser Lys Ala Asp Ile Trp Ser Leu Gly Ile Thr  
 195 200 205  
 Ala Ile Glu Leu Ala Arg Gly Glu Pro Pro His Ser Glu Leu His Pro  
 210 215 220  
 Met Lys Val Leu Phe Leu Ile Pro Lys Asn Asn Pro Pro Thr Leu Glu  
 225 230 235 240  
 Gly Asn Tyr Ser Lys Pro Leu Lys Glu Phe Val Glu Ala Cys Leu Asn  
 245 250 255

Lys Glu Pro Ser Phe Arg Pro Thr Ala Lys Glu Leu Leu Lys His Lys  
                   260                                  265                                  270  
 Phe Ile Leu Arg Asn Ala Lys Lys Thr Ser Tyr Leu Thr Glu Leu Ile  
                   275                                  280                                  285  
 Asp Arg Tyr Lys Arg Trp Lys Ala Glu Gln Ser His Asp Asp Ser Ser  
                   290                                  295                                  300  
 Ser Glu Asp Ser Asp Ala Glu Thr Asp Gly Gln Ala Ser Gly Gly Ser  
                   305                                  310                                  315                                  320  
 Asp Ser Gly Asp

<210> 77  
 <211> 328  
 <212> PRT  
 <213> Homo sapiens

<400> 77  
 Met Glu Gln Pro Pro Ala Pro Lys Ser Lys Leu Lys Lys Leu Ser Glu  
   1                                  5                                  10                                  15  
 Asp Ser Leu Thr Lys Gln Pro Glu Glu Val Phe Asp Val Leu Glu Lys  
                   20                                  25                                  30  
 Leu Gly Glu Gly Ser Tyr Gly Ser Val Phe Lys Ala Ile His Lys Glu  
                   35                                  40                                  45  
 Ser Gly Gln Val Val Ala Ile Lys Gln Val Pro Val Glu Ser Asp Leu  
                   50                                  55                                  60  
 Gln Glu Ile Ile Lys Glu Ile Ser Ile Met Gln Gln Cys Asp Ser Pro  
   65                                  70                                  75                                  80  
 Tyr Val Val Lys Tyr Tyr Gly Ser Tyr Phe Lys Asn Thr Asp Leu Trp  
                   85                                  90                                  95  
 Ile Val Met Glu Tyr Cys Gly Ala Gly Ser Val Ser Asp Ile Ile Arg  
                   100                                  105                                  110  
 Leu Arg Asn Lys Thr Leu Ile Glu Asp Glu Ile Ala Thr Ile Leu Lys  
                   115                                  120                                  125  
 Ser Thr Leu Lys Gly Leu Glu Tyr Leu His Phe Met Arg Lys Ile His  
                   130                                  135                                  140  
 Arg Asp Ile Lys Ala Gly Asn Ile Leu Leu Asn Thr Glu Gly His Ala  
   145                                  150                                  155                                  160  
 Lys Leu Ala Asp Phe Gly Val Ala Gly Gln Leu Thr Asp Thr Met Ala  
                   165                                  170                                  175  
 Lys Arg Asn Thr Val Ile Gly Thr Pro Phe Trp Met Ala Pro Glu Val  
                   180                                  185                                  190

Ile Gln Glu Ile Gly Tyr Asn Cys Val Ala Asp Ile Trp Ser Leu Gly  
195 200 205

Ile Thr Ser Ile Glu Met Ala Glu Gly Lys Pro Pro Tyr Ala Asp Ile  
210 215 220

His Pro Met Arg Ala Ile Phe Met Ile Pro Thr Asn Pro Pro Pro Thr  
225 230 235 240

Phe Arg Lys Pro Glu Leu Trp Ser Asp Asp Phe Thr Asp Phe Val Lys  
245 250 255

Lys Cys Leu Val Lys Asn Pro Glu Gln Arg Ala Thr Ala Thr Gln Leu  
260 265 270

Leu Gln His Pro Phe Ile Lys Asn Ala Lys Pro Val Ser Ile Leu Arg  
275 280 285

Asp Leu Ile Thr Glu Ala Met Glu Ile Lys Ala Lys Arg His Asp Glu  
290 295 300

Gln Gln Arg Glu Leu Glu Glu Glu Glu Asn Ser Asp Glu Asp Glu  
305 310 315 320

Leu Asp Ser His Thr Met Val Lys  
325

<210> 78

<211> 322

<212> PRT

<213> Homo sapiens

<400> 78

Met Glu Leu Arg Asp Val Ser Leu Gln Asp Pro Arg Asp Arg Phe Glu  
1 5 10 15

Leu Leu Gln Arg Val Gly Ala Gly Thr Tyr Gly Asp Val Tyr Lys Ala  
20 25 30

Arg Asp Thr Val Thr Ser Glu Leu Ala Ala Val Lys Ile Val Lys Leu  
35 40 45

Asp Pro Gly Asp Asp Ile Ser Ser Leu Gln Gln Glu Ile Thr Ile Leu  
50 55 60

Arg Glu Cys Arg His Pro Asn Val Val Ala Tyr Ile Gly Ser Tyr Leu  
65 70 75 80

Arg Asn Asp Arg Leu Trp Ile Cys Met Glu Phe Cys Gly Gly Gly Ser  
85 90 95

Leu Gln Glu Ile Tyr His Ala Thr Gly Pro Leu Glu Glu Arg Gln Ile  
100 105 110

Ala Tyr Val Cys Arg Glu Arg Leu Lys Gly Leu His His Leu His Ser  
115 120 125



Gln Gly Lys Ile His Arg Asp Ile Lys Gly Ala Asn Leu Leu Leu Thr  
 130 135 140  
 Leu Gln Gly Asp Val Lys Leu Ala Asp Phe Gly Val Ser Gly Glu Leu  
 145 150 155 160  
 Thr Ala Ser Val Ala Lys Arg Arg Ser Phe Ile Gly Thr Pro Tyr Trp  
 165 170 175  
 Met Ala Pro Glu Val Ala Ala Val Glu Arg Lys Gly Gly Tyr Asn Glu  
 180 185 190  
 Leu Cys Asp Val Trp Ala Leu Gly Ile Thr Ala Ile Glu Leu Gly Glu  
 195 200 205  
 Leu Gln Pro Pro Leu Phe His Leu His Pro Met Arg Ala Leu Met Leu  
 210 215 220  
 Met Ser Lys Ser Ser Phe Gln Pro Pro Lys Leu Arg Asp Lys Thr Arg  
 225 230 235 240  
 Trp Thr Gln Asn Phe His His Phe Leu Lys Leu Ala Leu Thr Lys Asn  
 245 250 255  
 Pro Lys Lys Arg Pro Thr Ala Glu Lys Leu Leu Gln His Pro Phe Thr  
 260 265 270  
 Thr Gln Gln Leu Pro Arg Ala Leu Leu Thr Gln Leu Leu Asp Lys Ala  
 275 280 285  
 Ser Asp Pro His Leu Gly Thr Pro Ser Pro Glu Asp Cys Glu Leu Glu  
 290 295 300  
 Thr Tyr Asp Met Phe Pro Asp Thr Ile His Ser Arg Gly Gln His Gly  
 305 310 315 320  
 Pro Ala

<210> 79  
 <211> 339  
 <212> PRT  
 <213> Homo sapiens

<400> 79  
 Met Ala Asn Asp Ser Pro Ala Lys Ser Leu Val Asp Ile Asp Leu Ser  
 1 5 10 15  
 Ser Leu Arg Asp Pro Ala Gly Ile Phe Glu Leu Val Glu Val Val Gly  
 20 25 30  
 Asn Gly Thr Tyr Gly Gln Val Tyr Lys Gly Arg His Val Lys Thr Gly  
 35 40 45  
 Gln Leu Ala Ala Ile Lys Val Met Asp Val Thr Glu Asp Glu Glu Glu  
 50 55 60

Glu Ile Lys Leu Glu Ile Asn Met Leu Lys Lys Tyr Ser His His Arg  
 65 70 75 80  
 Asn Ile Ala Thr Tyr Tyr Gly Ala Phe Ile Lys Lys Ser Pro Pro Gly  
 85 90 95  
 His Asp Asp Gln Leu Trp Leu Val Met Glu Phe Cys Gly Ala Gly Ser  
 100 105 110  
 Ile Thr Asp Leu Val Lys Asn Thr Lys Gly Asn Thr Leu Lys Glu Asp  
 115 120 125  
 Trp Ile Ala Tyr Ile Ser Arg Glu Ile Leu Arg Gly Leu Ala His Leu  
 130 135 140  
 His Ile His His Val Ile His Arg Asp Ile Lys Gly Gln Asn Val Leu  
 145 150 155 160  
 Leu Thr Glu Asn Ala Glu Val Lys Leu Val Asp Phe Gly Val Ser Ala  
 165 170 175  
 Gln Leu Asp Arg Thr Val Gly Arg Arg Asn Thr Phe Ile Gly Thr Pro  
 180 185 190  
 Tyr Trp Met Ala Pro Glu Val Ile Ala Cys Asp Glu Asn Pro Asp Ala  
 195 200 205  
 Thr Tyr Asp Tyr Arg Ser Asp Leu Trp Ser Cys Gly Ile Thr Ala Ile  
 210 215 220  
 Glu Met Ala Glu Gly Ala Pro Pro Leu Cys Asp Met His Pro Met Arg  
 225 230 235 240  
 Ala Leu Phe Leu Ile Pro Arg Asn Pro Pro Pro Arg Leu Lys Ser Lys  
 245 250 255  
 Lys Trp Ser Lys Lys Phe Phe Ser Phe Ile Glu Gly Cys Leu Val Lys  
 260 265 270  
 Asn Tyr Met Gln Arg Pro Ser Thr Glu Gln Leu Leu Lys His Pro Phe  
 275 280 285  
 Ile Arg Asp Gln Pro Asn Glu Arg Gln Val Arg Ile Gln Leu Lys Asp  
 290 295 300  
 His Ile Asp Arg Thr Arg Lys Lys Arg Gly Glu Lys Asp Glu Thr Glu  
 305 310 315 320  
 Tyr Glu Tyr Ser Gly Ser Glu Glu Glu Glu Glu Glu Val Pro Glu Gln  
 325 330 335  
 Glu Gly Glu

<210> 80  
 <211> 344  
 <212> PRT  
 <213> Homo sapiens

<400> 80  
 Met Ala Phe Ala Asn Phe Arg Arg Ile Leu Arg Leu Ser Thr Phe Glu  
   1                  5                  10                  15  
 Lys Arg Lys Ser Arg Glu Tyr Glu His Val Arg Arg Asp Leu Asp Pro  
           20                  25                  30  
 Asn Glu Val Trp Glu Ile Val Gly Glu Leu Gly Asp Gly Ala Phe Gly  
           35                  40                  45  
 Lys Val Tyr Lys Ala Lys Asn Lys Glu Thr Gly Ala Leu Ala Ala Ala  
           50                  55                  60  
 Lys Val Ile Glu Thr Lys Ser Glu Glu Glu Leu Glu Asp Tyr Ile Val  
           65                  70                  75                  80  
 Glu Ile Glu Ile Leu Ala Thr Cys Asp His Pro Tyr Ile Val Lys Leu  
                   85                  90                  95  
 Leu Gly Ala Tyr Tyr His Asp Gly Lys Leu Trp Ile Met Ile Glu Phe  
                   100                  105                  110  
 Cys Pro Gly Gly Ala Val Asp Ala Ile Met Leu Glu Leu Asp Arg Gly  
           115                  120                  125  
 Leu Thr Glu Pro Gln Ile Gln Val Val Cys Arg Gln Met Leu Glu Ala  
           130                  135                  140  
 Leu Asn Phe Leu His Ser Lys Arg Ile Ile His Arg Asp Leu Lys Ala  
           145                  150                  155                  160  
 Gly Asn Val Leu Met Thr Leu Glu Gly Asp Ile Arg Leu Ala Asp Phe  
                   165                  170                  175  
 Gly Val Ser Ala Lys Asn Leu Lys Thr Leu Gln Lys Arg Asp Ser Phe  
                   180                  185                  190  
 Ile Gly Thr Pro Tyr Trp Met Ala Pro Glu Val Val Met Cys Glu Thr  
           195                  200                  205  
 Met Lys Asp Thr Pro Tyr Asp Tyr Lys Ala Asp Ile Trp Ser Leu Gly  
           210                  215                  220  
 Ile Thr Leu Ile Glu Met Ala Gln Ile Glu Pro Pro His His Glu Leu  
           225                  230                  235                  240  
 Asn Pro Met Arg Val Leu Leu Lys Ile Ala Lys Ser Asp Pro Pro Thr  
                   245                  250                  255  
 Leu Leu Thr Pro Ser Lys Trp Ser Val Glu Phe Arg Asp Phe Leu Lys  
           260                  265                  270

100

Ile Ala Leu Asp Lys Asn Pro Glu Thr Arg Pro Ser Ala Ala Gln Leu  
275 280 285

Leu Glu His Pro Phe Val Ser Ser Ile Thr Ser Asn Lys Ala Leu Arg  
290 295 300

Glu Leu Val Ala Glu Ala Lys Ala Glu Val Met Glu Glu Ile Glu Asp  
305 310 315 320

Gly Arg Asp Glu Gly Glu Glu Asp Ala Val Asp Ala Ala Ser Thr  
325 330 335

Leu Glu Asn His Thr Gln Asn Ser  
340

<210> 81

<211> 337

<212> PRT

<213> Homo sapiens

<400> 81

Asp Gly Leu Ala Met Ser Leu His Phe Met Thr Leu Gly Gly Ser Ser  
1 5 10 15

Leu Ser Pro Thr Glu Gly Lys Gly Ser Gly Leu Gln Gly His Ile Ile  
20 25 30

Glu Asn Pro Gln Tyr Phe Ser Asp Ala Cys Val His His Ile Lys Arg  
35 40 45

Arg Asp Ile Val Leu Lys Trp Glu Leu Gly Glu Gly Ala Phe Gly Lys  
50 55 60

Val Phe Leu Ala Glu Cys His Asn Leu Leu Pro Glu Gln Asp Lys Met  
65 70 75 80

Leu Val Ala Val Lys Ala Leu Lys Glu Ala Ser Glu Ser Ala Arg Gln  
85 90 95

Asp Phe Gln Arg Glu Ala Glu Leu Leu Thr Met Leu Gln His Gln His  
100 105 110

Ile Val Arg Phe Phe Gly Val Cys Thr Glu Gly Arg Pro Leu Leu Met  
115 120 125

Val Phe Glu Tyr Met Arg His Gly Asp Leu Asn Arg Phe Leu Arg Ser  
130 135 140

His Gly Pro Asp Ala Lys Leu Leu Ala Gly Gly Glu Asp Val Ala Pro  
145 150 155 160

Gly Pro Leu Gly Leu Gly Gln Leu Leu Ala Val Ala Ser Gln Val Ala  
165 170 175

Ala Gly Met Val Tyr Leu Ala Gly Leu His Phe Val His Arg Asp Leu  
180 185 190

Ala Thr Arg Asn Cys Leu Val Gly Gln Gly Leu Val Val Lys Ile Gly  
 195 200 205

Asp Phe Gly Met Ser Arg Asp Ile Tyr Ser Thr Asp Tyr Tyr Arg Val  
 210 215 220

Gly Gly Arg Thr Met Leu Pro Ile Arg Trp Met Pro Pro Glu Ser Ile  
 225 230 235 240

Leu Tyr Arg Lys Phe Thr Thr Glu Ser Asp Val Trp Ser Phe Gly Val  
 245 250 255

Val Leu Trp Glu Ile Phe Thr Tyr Gly Lys Gln Pro Trp Tyr Gln Leu  
 260 265 270

Ser Asn Thr Glu Ala Ile Asp Cys Ile Thr Gln Gly Arg Glu Leu Glu  
 275 280 285

Arg Pro Arg Ala Cys Pro Pro Glu Val Tyr Ala Ile Met Arg Gly Cys  
 290 295 300

Trp Gln Arg Glu Pro Gln Gln Arg His Ser Ile Lys Asp Val His Ala  
 305 310 315 320

Arg Leu Gln Ala Leu Ala Gln Ala Pro Pro Val Tyr Leu Asp Val Leu  
 325 330 335

Gly

<210> 82  
 <211> 345  
 <212> PRT  
 <213> Homo sapiens

<400> 82  
 Lys Asn Lys Lys Arg Glu Ser Ala Ala Val Thr Leu Thr Thr Leu Pro  
 1 5 10 15

Ser Glu Leu Leu Leu Asp Arg Leu His Pro Asn Pro Met Tyr Gln Arg  
 20 25 30

Met Pro Leu Leu Leu Asn Pro Lys Leu Leu Ser Leu Glu Tyr Pro Arg  
 35 40 45

Asn Asn Ile Glu Tyr Val Arg Asp Ile Gly Glu Gly Ala Phe Gly Arg  
 50 55 60

Val Phe Gln Ala Arg Ala Pro Gly Leu Leu Pro Tyr Glu Pro Phe Thr  
 65 70 75 80

Met Val Ala Val Lys Met Leu Lys Glu Glu Ala Ser Ala Asp Met Gln  
 85 90 95

Ala Asp Phe Gln Arg Glu Ala Ala Leu Met Ala Glu Phe Asp Asn Pro  
 100 105 110

Asn Ile Val Lys Leu Leu Gly Val Cys Ala Val Gly Lys Pro Met Cys  
 115 120 125  
 Leu Leu Phe Glu Tyr Met Ala Tyr Gly Asp Leu Asn Glu Phe Leu Arg  
 130 135 140  
 Ser Met Ser Pro His Thr Val Cys Ser Leu Ser His Ser Asp Leu Ser  
 145 150 155 160  
 Met Arg Ala Gln Val Ser Ser Pro Gly Pro Pro Pro Leu Ser Cys Ala  
 165 170 175  
 Glu Gln Leu Cys Ile Ala Arg Gln Val Ala Ala Gly Met Ala Tyr Leu  
 180 185 190  
 Ser Glu Arg Lys Phe Val His Arg Asp Leu Ala Thr Arg Asn Cys Leu  
 195 200 205  
 Val Gly Glu Asn Met Val Val Lys Ile Ala Asp Phe Gly Leu Ser Arg  
 210 215 220  
 Asn Ile Tyr Ser Ala Asp Tyr Tyr Lys Ala Asn Glu Asn Asp Ala Ile  
 225 230 235 240  
 Pro Ile Arg Trp Met Pro Pro Glu Ser Ile Phe Tyr Asn Arg Tyr Thr  
 245 250 255  
 Thr Glu Ser Asp Val Trp Ala Tyr Gly Val Val Leu Trp Glu Ile Phe  
 260 265 270  
 Ser Tyr Gly Leu Gln Pro Tyr Tyr Gly Met Ala His Glu Glu Val Ile  
 275 280 285  
 Tyr Tyr Val Arg Asp Gly Asn Ile Leu Ser Cys Pro Glu Asn Cys Pro  
 290 295 300  
 Val Glu Leu Tyr Asn Leu Met Arg Leu Cys Trp Ser Lys Leu Pro Ala  
 305 310 315 320  
 Asp Arg Pro Ser Phe Thr Ser Ile His Arg Ile Leu Glu Arg Met Cys  
 325 330 335  
 Glu Arg Ala Glu Gly Thr Val Ser Val  
 340 345

&lt;210&gt; 83

&lt;211&gt; 376

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 83

Phe Phe Ile Cys Val Cys Arg Asn Asn Gln Lys Ser Ser Ser Ala Pro  
 1 5 10 15

Val Gln Arg Gln Pro Lys His Val Arg Gly Gln Asn Val Glu Met Ser  
 20 25 30

Met	Leu	Asn	Ala	Tyr	Lys	Pro	Lys	Ser	Lys	Ala	Lys	Glu	Leu	Pro	Leu
		35					40					45			
Ser	Ala	Val	Arg	Phe	Met	Glu	Glu	Leu	Gly	Glu	Cys	Ala	Phe	Gly	Lys
	50					55					60				
Ile	Tyr	Lys	Gly	His	Leu	Tyr	Leu	Pro	Gly	Met	Asp	His	Ala	Gln	Leu
	65				70					75					80
Val	Ala	Ile	Lys	Thr	Leu	Lys	Asp	Tyr	Asn	Asn	Pro	Gln	Gln	Trp	Met
				85					90					95	
Glu	Phe	Gln	Gln	Glu	Ala	Ser	Leu	Met	Ala	Glu	Leu	His	His	Pro	Asn
			100					105					110		
Ile	Val	Cys	Leu	Leu	Gly	Ala	Val	Thr	Gln	Glu	Gln	Pro	Val	Cys	Met
		115					120					125			
Leu	Phe	Glu	Tyr	Ile	Asn	Gln	Gly	Asp	Leu	His	Glu	Phe	Leu	Ile	Met
	130					135					140				
Arg	Ser	Pro	His	Ser	Asp	Val	Gly	Cys	Ser	Ser	Asp	Glu	Asp	Gly	Thr
	145				150					155					160
Val	Lys	Ser	Ser	Leu	Asp	His	Gly	Asp	Phe	Leu	His	Ile	Ala	Ile	Gln
				165					170					175	
Ile	Ala	Ala	Gly	Met	Glu	Tyr	Leu	Ser	Ser	His	Phe	Phe	Val	His	Lys
			180					185					190		
Asp	Leu	Ala	Ala	Arg	Asn	Ile	Leu	Ile	Gly	Glu	Gln	Leu	His	Val	Lys
		195					200					205			
Ile	Ser	Asp	Leu	Gly	Leu	Ser	Arg	Glu	Ile	Tyr	Ser	Ala	Asp	Tyr	Tyr
	210					215					220				
Arg	Val	Gln	Ser	Lys	Ser	Leu	Leu	Pro	Ile	Arg	Trp	Met	Pro	Pro	Glu
	225				230					235					240
Ala	Ile	Met	Tyr	Gly	Lys	Phe	Ser	Ser	Asp	Ser	Asp	Ile	Trp	Ser	Phe
				245					250					255	
Gly	Val	Val	Leu	Trp	Glu	Ile	Phe	Ser	Phe	Gly	Leu	Gln	Pro	Tyr	Tyr
			260					265					270		
Gly	Phe	Ser	Asn	Gln	Glu	Val	Ile	Glu	Met	Val	Arg	Lys	Arg	Gln	Leu
		275					280					285			
Leu	Pro	Cys	Ser	Glu	Asp	Cys	Pro	Pro	Arg	Met	Tyr	Ser	Leu	Met	Thr
	290					295					300				
Glu	Cys	Trp	Asn	Glu	Ile	Pro	Ser	Arg	Arg	Pro	Arg	Phe	Lys	Asp	Ile
	305				310					315					320
His	Val	Arg	Leu	Arg	Ser	Trp	Glu	Gly	Leu	Ser	Ser	His	Thr	Ser	Ser
				325					330					335	

Thr Thr Pro Ser Gly Gly Asn Ala Thr Thr Gln Thr Thr Ser Leu Ser  
                   340                                  345                                  350

Ala Ser Pro Val Ser Asn Leu Ser Asn Pro Arg Tyr Pro Asn Tyr Met  
                   355                                  360                                  365

Phe Pro Ser Gln Gly Ile Thr Pro  
           370                                  375

<210> 84

<211> 300

<212> PRT

<213> Homo sapiens

<400> 84

Gly Leu Lys Lys Gln Glu Glu Glu Glu Met Asp Phe Arg Ser Gly Ser  
   1                                  5                                  10                                  15

Pro Ser Asp Asn Ser Gly Ala Glu Glu Met Glu Val Ser Leu Ala Lys  
                   20                                  25                                  30

Pro Lys His Arg Val Thr Met Asn Glu Phe Glu Tyr Leu Lys Leu Leu  
                   35                                  40                                  45

Gly Lys Gly Thr Phe Gly Lys Val Ile Leu Val Lys Glu Lys Ala Thr  
           50                                  55                                  60

Gly Arg Tyr Tyr Ala Met Lys Ile Leu Lys Lys Glu Val Ile Val Ala  
   65                                  70                                  75                                  80

Lys Asp Glu Val Ala His Thr Leu Thr Glu Asn Arg Val Leu Gln Asn  
                   85                                  90                                  95

Ser Arg His Pro Phe Leu Thr Ala Leu Lys Tyr Ser Phe Gln Thr His  
                   100                                  105                                  110

Asp Arg Leu Cys Phe Val Met Glu Tyr Ala Asn Gly Gly Glu Leu Phe  
           115                                  120                                  125

Phe His Leu Ser Arg Glu Arg Val Phe Ser Glu Asp Arg Ala Arg Phe  
           130                                  135                                  140

Tyr Gly Ala Glu Ile Val Ser Ala Leu Asp Tyr Leu His Ser Glu Lys  
   145                                  150                                  155                                  160

Asn Val Val Tyr Arg Asp Leu Lys Leu Glu Asn Leu Met Leu Asp Lys  
                   165                                  170                                  175

Asp Gly His Ile Lys Ile Thr Asp Phe Gly Leu Cys Lys Glu Gly Ile  
                   180                                  185                                  190

Lys Asp Gly Ala Thr Met Lys Thr Phe Cys Gly Thr Pro Glu Tyr Leu  
           195                                  200                                  205

Ala Pro Glu Val Leu Glu Asp Asn Asp Tyr Gly Arg Ala Val Asp Trp  
           210                                  215                                  220



105

Trp Gly Leu Gly Val Val Met Tyr Glu Met Met Cys Gly Arg Leu Pro  
225 230 235 240

Phe Tyr Asn Gln Asp His Glu Lys Leu Phe Glu Leu Ile Leu Met Glu  
245 250 255

Glu Ile Arg Phe Pro Arg Thr Leu Gly Pro Glu Ala Lys Ser Leu Leu  
260 265 270

Ser Gly Leu Leu Lys Lys Asp Pro Lys Gln Arg Leu Gly Gly Gly Ser  
275 280 285

Glu Asp Ala Lys Glu Ile Met Gln His Arg Phe Phe  
290 295 300

<210> 85

<211> 308

<212> PRT

<213> Homo sapiens

<400> 85

Ala Cys Lys His Pro Glu Val Gln Ser Ile Leu Lys Ile Ser Gln Pro  
1 5 10 15

Gln Glu Pro Glu Leu Met Asn Ala Asn Pro Ser Pro Pro Pro Ser Pro  
20 25 30

Ser Gln Gln Ile Asn Leu Gly Pro Ser Ser Asn Pro His Ala Lys Pro  
35 40 45

Ser Asp Phe His Phe Leu Lys Val Ile Gly Lys Gly Ser Phe Gly Lys  
50 55 60

Val Leu Leu Ala Arg His Lys Ala Glu Glu Val Phe Tyr Ala Val Lys  
65 70 75 80

Val Leu Gln Lys Lys Ala Ile Leu Lys Lys Lys Glu Glu Lys His Ile  
85 90 95

Met Ser Glu Arg Asn Val Leu Leu Lys Asn Val Lys His Pro Phe Leu  
100 105 110

Val Gly Leu His Phe Ser Phe Gln Thr Ala Asp Lys Leu Tyr Phe Val  
115 120 125

Leu Asp Tyr Ile Asn Gly Gly Glu Leu Phe Tyr His Leu Gln Arg Glu  
130 135 140

Arg Cys Phe Leu Glu Pro Arg Ala Arg Phe Tyr Ala Ala Glu Ile Ala  
145 150 155 160

Ser Ala Leu Gly Tyr Leu His Ser Leu Asn Ile Val Tyr Arg Asp Leu  
165 170 175

Lys Pro Glu Asn Ile Leu Leu Asp Ser Gln Gly His Ile Val Leu Thr  
180 185 190

Asp Phe Gly Leu Cys Lys Glu Asn Ile Glu His Asn Ser Thr Thr Ser  
 195 200 205

Thr Phe Cys Gly Thr Pro Glu Tyr Leu Ala Pro Glu Val Leu His Lys  
 210 215 220

Gln Pro Tyr Asp Arg Thr Val Asp Trp Trp Cys Leu Gly Ala Val Leu  
 225 230 235 240

Tyr Glu Met Leu Tyr Gly Leu Pro Pro Phe Tyr Ser Arg Asn Thr Ala  
 245 250 255

Glu Met Tyr Asp Asn Ile Leu Asn Lys Pro Leu Gln Leu Lys Pro Asn  
 260 265 270

Ile Thr Asn Ser Ala Arg His Leu Leu Glu Gly Leu Leu Gln Lys Asp  
 275 280 285

Arg Thr Lys Arg Leu Gly Ala Lys Asp Asp Phe Met Glu Ile Lys Ser  
 290 295 300

His Val Phe Phe  
 305

<210> 86

<211> 310

<212> PRT

<213> Homo sapiens

<400> 86

Lys Ser Ser Arg Asp Pro Pro Ser Ser Pro Ser Ser Leu Ser Ser Pro  
 1 5 10 15

Ile Gln Glu Ser Thr Ala Pro Glu Leu Pro Ser Glu Thr Gln Glu Thr  
 20 25 30

Pro Gly Pro Ala Leu Cys Ser Pro Leu Arg Lys Ser Pro Leu Thr Leu  
 35 40 45

Glu Asp Phe Lys Phe Leu Ala Val Leu Gly Arg Gly His Phe Gly Lys  
 50 55 60

Val Leu Leu Ser Glu Phe Arg Pro Ser Gly Glu Leu Phe Ala Ile Lys  
 65 70 75 80

Ala Leu Lys Lys Gly Asp Ile Val Ala Arg Asp Glu Val Glu Ser Leu  
 85 90 95

Met Cys Glu Lys Arg Ile Leu Ala Ala Val Thr Ser Ala Gly His Pro  
 100 105 110

Phe Leu Val Asn Leu Phe Gly Cys Phe Gln Thr Pro Glu His Val Cys  
 115 120 125

Phe Val Met Glu Tyr Ser Ala Gly Gly Asp Leu Met Leu His Ile His  
 130 135 140

Ser Asp Val Phe Ser Glu Pro Arg Ala Ile Phe Tyr Ser Ala Cys Val  
145 150 155 160

Val Leu Gly Leu Gln Phe Leu His Glu His Lys Ile Val Tyr Arg Asp  
165 170 175

Leu Lys Leu Asp Asn Leu Leu Leu Asp Thr Glu Gly Tyr Val Lys Ile  
180 185 190

Ala Asp Phe Gly Leu Cys Lys Glu Gly Met Gly Tyr Gly Asp Arg Thr  
195 200 205

Ser Thr Phe Cys Gly Thr Pro Glu Phe Leu Ala Pro Glu Val Leu Thr  
210 215 220

Asp Thr Ser Tyr Thr Arg Ala Val Asp Trp Trp Gly Leu Gly Val Leu  
225 230 235 240

Leu Tyr Glu Met Leu Val Gly Glu Ser Pro Phe Pro Gly Asp Asp Glu  
245 250 255

Glu Glu Val Phe Asp Ser Ile Val Asn Asp Glu Val Arg Tyr Pro Arg  
260 265 270

Phe Leu Ser Ala Glu Ala Ile Gly Ile Met Arg Arg Leu Leu Arg Arg  
275 280 285

Asn Pro Glu Arg Arg Leu Gly Ser Ser Glu Arg Asp Ala Glu Asp Val  
290 295 300

Lys Lys Gln Pro Phe Phe  
305 310

<210> 87

<211> 309

<212> PRT

<213> Homo sapiens

<400> 87

Pro Ile Pro Glu Gly Asp Glu Glu Gly Asn Met Glu Leu Arg Gln Lys  
1 5 10 15

Phe Glu Lys Ala Lys Leu Gly Pro Ala Gly Asn Lys Val Ile Ser Pro  
20 25 30

Ser Glu Asp Arg Lys Gln Pro Ser Asn Asn Leu Asp Arg Val Lys Leu  
35 40 45

Thr Asp Phe Asn Phe Leu Met Val Leu Gly Lys Gly Ser Phe Gly Lys  
50 55 60

Val Met Leu Ala Asp Arg Lys Gly Thr Glu Glu Leu Tyr Ala Ile Lys  
65 70 75 80

Ile Leu Lys Lys Asp Val Val Ile Gln Asp Asp Asp Val Glu Cys Thr  
85 90 95

Met Val Glu Lys Arg Val Leu Ala Leu Leu Asp Lys Pro Pro Phe Leu  
100 105 110

Thr Gln Leu His Ser Cys Phe Gln Thr Val Asp Arg Leu Tyr Phe Val  
115 120 125

Met Glu Tyr Val Asn Gly Gly Asp Leu Met Tyr His Ile Gln Gln Val  
130 135 140

Gly Lys Phe Lys Glu Pro Gln Ala Val Phe Tyr Ala Ala Glu Ile Ser  
145 150 155 160

Ile Gly Leu Phe Phe Leu His Lys Arg Gly Ile Ile Tyr Arg Asp Leu  
165 170 175

Lys Leu Asp Asn Val Met Leu Asp Ser Glu Gly His Ile Lys Ile Ala  
180 185 190

Asp Phe Gly Met Cys Lys Glu His Met Met Asp Gly Val Thr Thr Arg  
195 200 205

Thr Phe Cys Gly Thr Pro Asp Tyr Ile Ala Pro Glu Ile Ile Ala Tyr  
210 215 220

Gln Pro Tyr Gly Lys Ser Val Asp Trp Trp Ala Tyr Gly Val Leu Leu  
225 230 235 240

Tyr Glu Met Leu Ala Gly Gln Pro Pro Phe Asp Gly Glu Asp Glu Asp  
245 250 255

Glu Leu Phe Gln Ser Ile Met Glu His Asn Val Ser Tyr Pro Lys Ser  
260 265 270

Leu Ser Lys Glu Ala Val Ser Ile Cys Lys Gly Leu Met Thr Lys His  
275 280 285

Pro Ala Lys Arg Leu Gly Cys Gly Pro Glu Gly Glu Arg Asp Val Arg  
290 295 300

Glu His Ala Phe Phe  
305

&lt;210&gt; 88

&lt;211&gt; 305

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 88

Ser Arg Arg Ser Asp Ser Ala Ser Ser Glu Pro Val Gly Ile Tyr Gln  
1 5 10 15

Gly Phe Glu Lys Lys Thr Gly Val Ala Gly Glu Asp Met Gln Asp Asn  
20 25 30

Ser Gly Thr Tyr Gly Lys Ile Trp Glu Gly Ser Ser Lys Cys Asn Ile  
35 40 45

Asn	Asn	Phe	Ile	Phe	His	Lys	Val	Leu	Gly	Lys	Gly	Ser	Phe	Gly	Lys	
	50					55					60					
Val	Leu	Leu	Gly	Glu	Leu	Lys	Gly	Arg	Gly	Glu	Tyr	Phe	Ala	Ile	Lys	
	65				70					75					80	
Ala	Leu	Lys	Lys	Asp	Val	Val	Leu	Ile	Asp	Asp	Asp	Val	Glu	Cys	Thr	
				85					90					95		
Met	Val	Glu	Lys	Arg	Val	Leu	Thr	Leu	Ala	Ala	Glu	Asn	Pro	Phe	Leu	
			100					105					110			
Thr	His	Leu	Ile	Cys	Thr	Phe	Gln	Thr	Lys	Asp	His	Leu	Phe	Phe	Val	
		115					120					125				
Met	Glu	Phe	Leu	Asn	Gly	Gly	Asp	Leu	Met	Tyr	His	Ile	Gln	Asp	Lys	
	130					135					140					
Gly	Arg	Phe	Glu	Leu	Tyr	Arg	Ala	Thr	Phe	Tyr	Ala	Ala	Glu	Ile	Met	
	145				150					155					160	
Cys	Gly	Leu	Gln	Phe	Leu	His	Ser	Lys	Gly	Ile	Ile	Tyr	Arg	Asp	Leu	
				165					170					175		
Lys	Leu	Asp	Asn	Val	Leu	Leu	Asp	Arg	Asp	Gly	His	Ile	Lys	Ile	Ala	
			180					185					190			
Asp	Phe	Gly	Met	Cys	Lys	Glu	Asn	Ile	Phe	Gly	Glu	Ser	Arg	Ala	Ser	
		195					200					205				
Thr	Phe	Cys	Gly	Thr	Pro	Asp	Tyr	Ile	Ala	Pro	Glu	Ile	Leu	Gln	Gly	
	210					215					220					
Leu	Lys	Tyr	Thr	Phe	Ser	Val	Asp	Trp	Trp	Ser	Phe	Gly	Val	Leu	Leu	
	225				230					235					240	
Tyr	Glu	Met	Leu	Ile	Gly	Gln	Ser	Pro	Phe	His	Gly	Asp	Asp	Glu	Asp	
				245					250					255		
Glu	Leu	Phe	Glu	Ser	Ile	Arg	Val	Asp	Thr	Pro	His	Tyr	Pro	Arg	Trp	
			260					265					270			
Ile	Thr	Lys	Glu	Ser	Lys	Asp	Ile	Leu	Glu	Lys	Leu	Phe	Glu	Arg	Glu	
		275					280					285				
Pro	Thr	Lys	Arg	Leu	Gly	Val	Thr	Gly	Asn	Ile	Lys	Ile	His	Pro	Phe	
	290					295					300					
Phe																
305																

&lt;210&gt; 89

&lt;211&gt; 310

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 89

Leu Met Glu Leu Val Pro Leu Asp Pro Glu Asn Gly Gln Thr Ser Gly  
 1 5 10 15  
 Glu Glu Ala Gly Leu Gln Pro Ser Lys Asp Glu Gly Val Leu Lys Glu  
 20 25 30  
 Ile Ser Ile Thr His His Val Lys Ala Gly Ser Glu Lys Ala Asp Pro  
 35 40 45  
 Ser His Phe Glu Leu Leu Lys Val Leu Gly Gln Gly Ser Phe Gly Lys  
 50 55 60  
 Val Phe Leu Val Arg Lys Val Thr Arg Pro Asp Ser Gly His Leu Tyr  
 65 70 75 80  
 Ala Met Lys Val Leu Lys Lys Ala Thr Leu Lys Val Arg Asp Arg Val  
 85 90 95  
 Arg Thr Lys Met Glu Arg Asp Ile Leu Ala Asp Val Asn His Pro Phe  
 100 105 110  
 Val Val Lys Leu His Tyr Ala Phe Gln Thr Glu Gly Lys Leu Tyr Leu  
 115 120 125  
 Ile Leu Asp Phe Leu Arg Gly Gly Asp Leu Phe Thr Arg Leu Ser Lys  
 130 135 140  
 Glu Val Met Phe Thr Glu Glu Asp Val Lys Phe Tyr Leu Ala Glu Leu  
 145 150 155 160  
 Ala Leu Gly Leu Asp His Leu His Ser Leu Gly Ile Ile Tyr Arg Asp  
 165 170 175  
 Leu Lys Pro Glu Asn Ile Leu Leu Asp Glu Glu Gly His Ile Lys Leu  
 180 185 190  
 Thr Asp Phe Gly Leu Ser Lys Glu Ala Ile Asp His Glu Lys Lys Ala  
 195 200 205  
 Tyr Ser Phe Cys Gly Thr Val Glu Tyr Met Ala Pro Glu Val Val Asn  
 210 215 220  
 Arg Gln Gly His Ser His Ser Ala Asp Trp Trp Ser Tyr Gly Val Leu  
 225 230 235 240  
 Met Phe Glu Met Leu Thr Gly Ser Leu Pro Phe Gln Gly Lys Asp Arg  
 245 250 255  
 Lys Glu Thr Met Thr Leu Ile Leu Lys Ala Lys Leu Gly Met Pro Gln  
 260 265 270  
 Phe Leu Ser Thr Glu Ala Gln Ser Leu Leu Arg Ala Leu Phe Lys Arg  
 275 280 285  
 Asn Pro Ala Asn Arg Leu Gly Ser Gly Pro Asp Gly Ala Glu Glu Ile  
 290 295 300

Lys Arg His Val Phe Tyr  
305 310

<210> 90  
<211> 317  
<212> PRT  
<213> Homo sapiens

<400> 90  
Met Asp Gln Tyr Cys Ile Leu Gly Arg Ile Gly Glu Gly Ala His Gly  
1 5 10 15  
Ile Val Phe Lys Ala Lys His Val Glu Thr Gly Glu Ile Ile Ala Leu  
20 25 30  
Lys Lys Val Ala Leu Arg Arg Leu Glu Asp Gly Phe Pro Asn Gln Ala  
35 40 45  
Leu Arg Glu Ile Lys Ala Leu Gln Glu Met Glu Asp Asn Gln Tyr Val  
50 55 60  
Val Gln Leu Lys Ala Val Phe Pro His Gly Gly Gly Phe Val Leu Ala  
65 70 75 80  
Phe Glu Phe Met Leu Ser Asp Leu Ala Glu Val Val Arg His Ala Gln  
85 90 95  
Arg Pro Leu Ala Gln Ala Gln Val Lys Ser Tyr Leu Gln Met Leu Leu  
100 105 110  
Lys Gly Val Ala Phe Cys His Ala Asn Asn Ile Val His Arg Asp Leu  
115 120 125  
Lys Pro Ala Asn Leu Leu Ile Ser Ala Ser Gly Gln Leu Lys Ile Ala  
130 135 140  
Asp Phe Gly Leu Ala Arg Val Phe Ser Pro Asp Gly Ser Arg Leu Tyr  
145 150 155 160  
Thr His Gln Val Ala Thr Arg Ser Val Gly Cys Ile Met Gly Glu Leu  
165 170 175  
Leu Asn Gly Ser Pro Leu Phe Pro Gly Lys Asn Asp Ile Glu Gln Leu  
180 185 190  
Cys Tyr Val Leu Arg Ile Leu Gly Thr Pro Asn Pro Gln Val Trp Pro  
195 200 205  
Glu Leu Thr Glu Leu Pro Asp Tyr Asn Lys Ile Ser Phe Lys Glu Gln  
210 215 220  
Val Pro Met Pro Leu Glu Glu Val Leu Pro Asp Val Ser Pro Gln Ala  
225 230 235 240  
Leu Asp Leu Leu Gly Gln Phe Leu Leu Tyr Pro Pro His Gln Arg Ile  
245 250 255

Ala Ala Ser Lys Ala Leu Leu His Gln Tyr Phe Phe Thr Ala Pro Leu  
                   260                                  265                                  270

Pro Ala His Pro Ser Glu Leu Pro Ile Pro Gln Arg Leu Gly Gly Pro  
                   275                                  280                                  285

Ala Pro Lys Ala His Pro Gly Pro Pro His Ile His Asp Phe His Val  
                   290                                  295                                  300

Asp Arg Pro Leu Glu Gly Val Ala Val Glu Pro Arg Ala  
                   305                                  310                                  315

<210> 91

<211> 331

<212> PRT

<213> Homo sapiens

<400> 91

Met Pro Ala Gly Gly Arg Ala Gly Ser Leu Lys Asp Pro Asp Val Ala  
                   1                                  5                                  10                                  15

Glu Leu Phe Phe Lys Asp Asp Pro Glu Lys Leu Phe Ser Asp Leu Arg  
                                   20                                  25                                  30

Glu Ile Gly His Gly Ser Phe Gly Ala Val Tyr Phe Ala Arg Asp Val  
                   35                                  40                                  45

Arg Asn Ser Glu Val Val Ala Ile Lys Lys Met Ser Tyr Ser Gly Lys  
                   50                                  55                                  60

Gln Ser Asn Glu Lys Trp Gln Asp Ile Ile Lys Glu Val Arg Phe Leu  
                   65                                  70                                  75                                  80

Gln Lys Leu Arg His Pro Asn Thr Ile Gln Tyr Arg Gly Cys Tyr Leu  
                                   85                                  90                                  95

Arg Glu His Thr Ala Trp Leu Val Met Glu Tyr Cys Leu Gly Ser Ala  
                                   100                                  105                                  110

Ser Asp Leu Leu Glu Val His Lys Lys Pro Leu Gln Glu Val Glu Ile  
                   115                                  120                                  125

Ala Ala Val Thr His Gly Ala Leu Gln Gly Leu Ala Tyr Leu His Ser  
                   130                                  135                                  140

His Asn Met Ile His Arg Asp Val Lys Ala Gly Asn Ile Leu Leu Ser  
                   145                                  150                                  155                                  160

Glu Pro Gly Leu Val Lys Leu Gly Asp Phe Gly Ser Ala Ser Ile Met  
                                   165                                  170                                  175

Ala Pro Ala Asn Ser Phe Val Gly Thr Pro Tyr Trp Met Ala Pro Glu  
                   180                                  185                                  190

Val Ile Leu Ala Met Asp Glu Gly Gln Tyr Asp Gly Lys Val Asp Val  
                   195                                  200                                  205



Trp Ser Leu Gly Ile Thr Cys Ile Glu Leu Ala Glu Arg Lys Pro Pro  
 210 215 220

Leu Phe Asn Met Asn Ala Met Ser Ala Leu Tyr His Ile Ala Gln Asn  
 225 230 235 240

Glu Ser Pro Val Leu Gln Ser Gly His Trp Ser Glu Tyr Phe Arg Asn  
 245 250 255

Phe Val Asp Ser Cys Leu Gln Lys Ile Pro Gln Asp Arg Pro Thr Ser  
 260 265 270

Glu Val Leu Leu Lys His Arg Phe Val Leu Arg Glu Arg Pro Pro Thr  
 275 280 285

Val Ile Met Asp Leu Ile Gln Arg Thr Lys Asp Ala Val Arg Glu Leu  
 290 295 300

Asp Asn Leu Gln Tyr Arg Lys Met Lys Lys Ile Leu Phe Gln Glu Ala  
 305 310 315 320

Pro Asn Gly Pro Gly Ala Glu Ala Pro Glu Glu  
 325 330

<210> 92

<211> 357

<212> PRT

<213> Homo sapiens

<400> 92

Ser Ile Pro Lys Leu Ala Asn Ser Glu Lys Gln Gly Met Arg Thr His  
 1 5 10 15

Ala Val Ser Val Ser Glu Thr Asp Asp Tyr Ala Glu Ile Ile Asp Glu  
 20 25 30

Glu Asp Thr Tyr Thr Met Pro Ser Thr Arg Asp Tyr Glu Ile Gln Arg  
 35 40 45

Glu Arg Ile Glu Leu Gly Arg Cys Ile Gly Glu Gly Gln Phe Gly Asp  
 50 55 60

Val His Gln Gly Ile Tyr Met Ser Pro Glu Asn Pro Ala Leu Ala Val  
 65 70 75 80

Ala Ile Lys Thr Cys Lys Asn Cys Thr Ser Asp Ser Val Arg Glu Lys  
 85 90 95

Phe Leu Gln Glu Ala Leu Thr Met Arg Gln Phe Asp His Pro His Ile  
 100 105 110

Val Lys Leu Ile Gly Val Ile Thr Glu Asn Pro Val Trp Ile Ile Met  
 115 120 125

Glu Leu Cys Thr Leu Gly Glu Leu Arg Ser Phe Leu Gln Val Arg Lys  
 130 135 140

Tyr Ser Leu Asp Leu Ala Ser Leu Ile Leu Tyr Ala Tyr Gln Leu Ser  
 145 150 155 160  
 Thr Ala Leu Ala Tyr Leu Glu Ser Lys Arg Phe Val His Arg Asp Ile  
 165 170 175  
 Ala Ala Arg Asn Val Leu Val Ser Ser Asn Asp Cys Val Lys Leu Gly  
 180 185 190  
 Asp Phe Gly Leu Ser Arg Tyr Met Glu Asp Ser Thr Tyr Tyr Lys Ala  
 195 200 205  
 Ser Lys Gly Lys Leu Pro Ile Lys Trp Met Ala Pro Glu Ser Ile Asn  
 210 215 220  
 Phe Arg Arg Phe Thr Ser Ala Ser Asp Val Trp Met Phe Gly Val Cys  
 225 230 235 240  
 Met Trp Glu Ile Leu Met His Gly Val Lys Pro Phe Gln Gly Val Lys  
 245 250 255  
 Asn Asn Asp Val Ile Gly Arg Ile Glu Asn Gly Glu Arg Leu Pro Met  
 260 265 270  
 Pro Pro Asn Cys Pro Pro Thr Leu Tyr Ser Leu Met Thr Lys Cys Trp  
 275 280 285  
 Ala Tyr Asp Pro Ser Arg Arg Pro Arg Phe Thr Glu Leu Lys Ala Gln  
 290 295 300  
 Leu Ser Thr Ile Leu Glu Glu Glu Lys Ala Gln Gln Glu Glu Arg Met  
 305 310 315 320  
 Arg Met Glu Ser Arg Arg Gln Ala Thr Val Ser Trp Asp Ser Gly Gly  
 325 330 335  
 Ser Asp Glu Ala Pro Pro Lys Pro Ser Arg Pro Gly Tyr Pro Ser Pro  
 340 345 350  
 Arg Ser Ser Glu Gly  
 355

&lt;210&gt; 93

&lt;211&gt; 354

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 93

Pro Pro Pro Gln Asn Ser Val Pro His Tyr Ala Glu Ala Asp Ile Val  
 1 5 10 15  
 Thr Leu Gln Gly Val Thr Gly Gly Asn Thr Tyr Ala Val Pro Ala Leu  
 20 25 30  
 Pro Pro Gly Ala Val Gly Asp Gly Pro Pro Arg Val Asp Phe Pro Arg  
 35 40 45

[illegible]

<210> 94  
 <211> 325  
 <212> PRT  
 <213> Homo sapiens

<400> 94

Met	Glu	Cys	Leu	Asn	Gly	Gly	Pro	Leu	Gln	Asn	Gly	Gln	Pro	Ser	Ala	1	5	10	15
Glu	Ile	Gln	Glu	Glu	Val	Ala	Leu	Thr	Ser	Leu	Gly	Ser	Gly	Pro	Ala	20	25	30	
Ala	Thr	Asn	Lys	Arg	His	Ser	Thr	Ser	Asp	Lys	Met	His	Phe	Pro	Arg	35	40	45	
Ser	Ser	Leu	Gln	Pro	Ile	Thr	Thr	Leu	Gly	Lys	Ser	Glu	Phe	Gly	Glu	50	55	60	
Val	Phe	Leu	Ala	Lys	Ala	Gln	Gly	Leu	Glu	Glu	Gly	Val	Ala	Glu	Thr	65	70	75	80
Leu	Val	Leu	Val	Lys	Ser	Leu	Gln	Ser	Lys	Asp	Glu	Gln	Gln	Gln	Leu	85	90	95	
Asp	Phe	Arg	Arg	Glu	Leu	Glu	Met	Phe	Gly	Lys	Leu	Asn	His	Ala	Asn	100	105	110	
Val	Val	Arg	Leu	Leu	Gly	Leu	Cys	Arg	Glu	Ala	Glu	Pro	His	Tyr	Met	115	120	125	
Val	Leu	Glu	Tyr	Val	Asp	Leu	Gly	Asp	Leu	Lys	Gln	Phe	Leu	Arg	Ile	130	135	140	
Ser	Lys	Ser	Lys	Asp	Glu	Lys	Leu	Lys	Ser	Gln	Pro	Leu	Ser	Thr	Lys	145	150	155	160
Gln	Lys	Val	Ala	Leu	Cys	Thr	Gln	Val	Ala	Leu	Gly	Met	Glu	His	Leu	165	170	175	
Ser	Asn	Asn	Arg	Phe	Val	His	Lys	Asp	Leu	Ala	Ala	Arg	Asn	Cys	Leu	180	185	190	
Val	Ser	Ala	Gln	Arg	Gln	Val	Lys	Val	Ser	Ala	Leu	Gly	Leu	Ser	Lys	195	200	205	
Asp	Val	Tyr	Asn	Ser	Glu	Tyr	Tyr	His	Phe	Arg	Gln	Ala	Trp	Val	Pro	210	215	220	
Leu	Arg	Trp	Met	Ser	Pro	Glu	Ala	Ile	Leu	Glu	Gly	Asp	Phe	Ser	Thr	225	230	235	240
Lys	Ser	Asp	Val	Trp	Ala	Phe	Gly	Val	Leu	Met	Trp	Glu	Val	Phe	Thr	245	250	255	

His Gly Glu Met Pro His Gly Gly Gln Ala Asp Asp Glu Val Leu Ala  
 260 265 270

Asp Leu Gln Ala Gly Lys Ala Arg Leu Pro Gln Pro Glu Gly Cys Pro  
 275 280 285

Ser Lys Leu Tyr Arg Leu Met Gln Arg Cys Trp Ala Leu Ser Pro Lys  
 290 295 300

Asp Arg Pro Ser Phe Ser Glu Ile Ala Ser Ala Leu Gly Asp Ser Thr  
 305 310 315 320

Val Asp Ser Lys Pro  
 325

<210> 95

<211> 324

<212> PRT

<213> Homo sapiens

<400> 95

Ser Gln Leu Gly Leu Asn Lys Asp Pro Leu Glu Glu Met Ala His Leu  
 1 5 10 15

Gly Asn Tyr Asp Ser Gly Thr Ala Glu Thr Pro Glu Thr Asp Glu Ser  
 20 25 30

Val Ser Ser Ser Asn Ala Ser Leu Lys Leu Arg Arg Lys Pro Arg Glu  
 35 40 45

Ser Asp Phe Glu Thr Ile Lys Leu Ile Ser Asn Gly Ala Tyr Gly Ala  
 50 55 60

Val Tyr Phe Val Arg His Lys Glu Ser Arg Gln Arg Phe Ala Met Lys  
 65 70 75 80

Lys Ile Asn Lys Gln Asn Leu Ile Leu Arg Asn Gln Ile Gln Gln Ala  
 85 90 95

Phe Val Glu Arg Asp Ile Leu Thr Phe Ala Glu Asn Pro Phe Val Val  
 100 105 110

Ser Met Tyr Cys Ser Phe Glu Thr Arg Arg His Leu Cys Met Val Met  
 115 120 125

Glu Tyr Val Glu Gly Gly Asp Cys Ala Thr Leu Met Lys Asn Met Gly  
 130 135 140

Pro Leu Pro Val Asp Met Ala Arg Met Tyr Phe Ala Glu Thr Val Leu  
 145 150 155 160

Ala Leu Glu Tyr Leu His Asn Tyr Gly Ile Val His Arg Asp Leu Lys  
 165 170 175

Pro Asp Asn Leu Leu Val Thr Ser Met Gly His Ile Lys Leu Thr Asp  
 180 185 190

Phe Gly Leu Ser Lys Val Gly Leu Met Ser Met Thr Thr Asn Leu Tyr  
 195 200 205

Glu Gly His Ile Glu Lys Asp Ala Arg Glu Phe Leu Asp Lys Gln Val  
 210 215 220

Cys Gly Thr Pro Glu Tyr Ile Ala Pro Glu Val Ile Leu Arg Gln Gly  
 225 230 235 240

Tyr Gly Lys Pro Val Asp Trp Trp Ala Met Gly Ile Ile Leu Tyr Glu  
 245 250 255

Phe Leu Val Gly Cys Val Pro Phe Phe Gly Asp Thr Pro Glu Glu Leu  
 260 265 270

Phe Gly Gln Val Ile Ser Asp Glu Ile Asn Trp Pro Glu Lys Asp Glu  
 275 280 285

Ala Pro Pro Pro Asp Ala Gln Asp Leu Ile Thr Leu Leu Leu Arg Gln  
 290 295 300

Asn Pro Leu Glu Arg Leu Gly Thr Gly Gly Ala Tyr Glu Val Lys Gln  
 305 310 315 320

His Arg Phe Phe

<210> 96

<211> 374

<212> PRT

<213> Homo sapiens

<400> 96

Ile Val Ser Gln Leu Gly Leu Thr Arg Asp Pro Leu Glu Glu Met Ala  
 1 5 10 15

Gln Leu Ser Ser Cys Asp Ser Pro Asp Thr Pro Glu Thr Asp Asp Ser  
 20 25 30

Ile Glu Gly His Gly Ala Ser Leu Pro Ser Lys Lys Thr Pro Ser Glu  
 35 40 45

Glu Asp Phe Glu Thr Ile Lys Leu Ile Ser Asn Gly Ala Tyr Gly Ala  
 50 55 60

Val Phe Leu Val Arg His Lys Ser Thr Arg Gln Arg Phe Ala Met Lys  
 65 70 75 80

Lys Ile Asn Lys Gln Asn Leu Ile Leu Arg Asn Gln Ile Gln Gln Ala  
 85 90 95

Phe Val Glu Arg Asp Ile Leu Thr Phe Ala Glu Asn Pro Phe Val Val  
 100 105 110

Ser Met Phe Cys Ser Phe Asp Thr Lys Arg His Leu Cys Met Val Met  
 115 120 125

Glu Tyr Val Glu Gly Gly Asp Cys Ala Thr Leu Leu Lys Asn Ile Gly  
 130 135 140  
 Ala Leu Pro Val Asp Met Val Arg Leu Tyr Phe Ala Glu Thr Val Leu  
 145 150 155 160  
 Ala Leu Glu Tyr Leu His Asn Tyr Gly Ile Val His Arg Asp Leu Lys  
 165 170 175  
 Pro Asp Asn Leu Leu Ile Thr Ser Met Gly His Ile Lys Leu Thr Asp  
 180 185 190  
 Phe Gly Leu Ser Lys Met Gly Leu Met Ser Leu Thr Thr Asn Leu Tyr  
 195 200 205  
 Glu Gly His Ile Glu Lys Asp Ala Arg Glu Phe Leu Asp Lys Gln Val  
 210 215 220  
 Cys Gly Thr Pro Glu Tyr Ile Ala Pro Glu Val Ile Leu Arg Gln Gly  
 225 230 235 240  
 Tyr Gly Lys Pro Val Asp Trp Trp Ala Met Gly Ile Ile Leu Tyr Glu  
 245 250 255  
 Phe Leu Val Gly Cys Val Pro Phe Phe Gly Asp Thr Pro Glu Glu Leu  
 260 265 270  
 Phe Gly Gln Val Ile Ser Asp Glu Ile Val Trp Pro Glu Gly Asp Glu  
 275 280 285  
 Ala Leu Pro Pro Asp Ala Gln Asp Leu Thr Ser Lys Leu Leu His Gln  
 290 295 300  
 Asn Pro Leu Glu Arg Leu Gly Thr Gly Ser Ala Tyr Glu Val Lys Gln  
 305 310 315 320  
 His Pro Phe Phe Thr Gly Leu Asp Trp Thr Gly Leu Leu Arg Gln Lys  
 325 330 335  
 Ala Glu Phe Ile Pro Gln Leu Glu Ser Glu Asp Asp Thr Ser Tyr Phe  
 340 345 350  
 Asp Thr Arg Ser Glu Arg Tyr His His Met Asp Ser Glu Asp Glu Glu  
 355 360 365  
 Glu Val Ser Glu Asp Gly  
 370  
  
 <210> 97  
 <211> 338  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 97  
 Met Met Glu Lys Tyr Glu Lys Ile Gly Lys Ile Gly Glu Gly Ser Tyr  
 1 5 10 15

Gly Val Val Phe Lys Cys Arg Asn Arg Asp Thr Gly Gln Ile Val Ala  
 20 25 30  
 Ile Lys Lys Phe Leu Glu Ser Glu Asp Asp Pro Val Ile Lys Lys Ile  
 35 40 45  
 Ala Leu Arg Glu Ile Arg Met Leu Lys Gln Leu Lys His Pro Asn Leu  
 50 55 60  
 Val Asn Leu Leu Glu Val Phe Arg Arg Lys Arg Arg Leu His Leu Val  
 65 70 75 80  
 Phe Glu Tyr Cys Asp His Thr Val Leu His Glu Leu Asp Arg Tyr Gln  
 85 90 95  
 Arg Gly Val Pro Glu His Leu Val Lys Ser Ile Thr Trp Gln Thr Leu  
 100 105 110  
 Gln Ala Val Asn Phe Cys His Lys His Asn Cys Ile His Arg Asp Val  
 115 120 125  
 Lys Pro Glu Asn Ile Leu Ile Thr Lys His Ser Val Ile Lys Leu Cys  
 130 135 140  
 Asp Phe Gly Phe Ala Arg Leu Leu Thr Gly Pro Ser Asp Tyr Tyr Thr  
 145 150 155 160  
 Asp Tyr Val Ala Thr Arg Trp Tyr Arg Ser Pro Glu Leu Leu Val Gly  
 165 170 175  
 Asp Thr Gln Tyr Gly Pro Pro Val Asp Val Trp Ala Ile Gly Cys Val  
 180 185 190  
 Phe Ala Glu Leu Leu Ser Gly Val Pro Leu Trp Pro Gly Lys Ser Asp  
 195 200 205  
 Val Asp Gln Leu Tyr Leu Ile Arg Lys Thr Leu Gly Asp Leu Ile Pro  
 210 215 220  
 Arg His Gln Gln Val Phe Ser Thr Asn Gln Tyr Phe Ser Gly Val Lys  
 225 230 235 240  
 Ile Pro Asp Pro Glu Asp Met Glu Pro Leu Glu Leu Lys Phe Pro Asn  
 245 250 255  
 Ile Ser Tyr Pro Ala Leu Gly Leu Leu Lys Gly Cys Leu His Met Asp  
 260 265 270  
 Pro Thr Gln Arg Leu Thr Cys Glu Gln Leu Leu His His Pro Tyr Phe  
 275 280 285  
 Glu Asn Ile Arg Glu Ile Glu Asp Leu Ala Lys Glu His Asn Lys Pro  
 290 295 300  
 Thr Arg Lys Thr Leu Arg Lys Ser Arg Lys His His Cys Phe Thr Glu  
 305 310 315 320



Thr Ser Lys Leu Gln Tyr Leu Pro Gln Leu Thr Gly Ser Ser Ile Leu  
                   325                  330                  335

Pro Ala

<210> 98

<211> 391

<212> PRT

<213> Homo sapiens

<400> 98

Pro Gly Gln Gln Gln Pro Tyr Phe Pro Ser Pro Ala Pro Gly Gln Ala  
   1                  5                  10                  15

Pro Gly Pro Ala Ala Ala Ala Pro Ala Gln Val Gln Ala Ala Ala Ala  
                   20                  25                  30

Ala Thr Val Lys Ala His His His Gln His Ser His His Pro Gln Gln  
                   35                  40                  45

Gln Leu Asp Ile Glu Pro Asp Arg Pro Ile Gly Tyr Gly Ala Phe Gly  
                   50                  55                  60

Val Val Trp Ser Val Thr Asp Pro Arg Asp Gly Lys Arg Val Ala Leu  
   65                  70                  75                  80

Lys Lys Met Pro Asn Val Phe Gln Asn Leu Val Ser Cys Lys Arg Val  
                   85                  90                  95

Phe Arg Glu Leu Lys Met Leu Cys Phe Phe Lys His Asp Asn Val Leu  
                   100                  105                  110

Ser Ala Leu Asp Ile Leu Gln Pro Pro His Ile Asp Tyr Phe Glu Glu  
                   115                  120                  125

Ile Tyr Val Val Thr Glu Leu Met Gln Ser Asp Leu His Lys Ile Ile  
   130                  135                  140

Val Ser Pro Gln Pro Leu Ser Ser Asp His Val Lys Val Phe Leu Tyr  
  145                  150                  155                  160

Gln Ile Leu Arg Gly Leu Lys Tyr Leu His Ser Ala Gly Ile Leu His  
                   165                  170                  175

Arg Asp Ile Lys Pro Gly Asn Leu Leu Val Asn Ser Asn Cys Val Leu  
                   180                  185                  190

Lys Ile Cys Asp Phe Gly Leu Ala Arg Val Glu Glu Leu Asp Glu Ser  
                   195                  200                  205

Arg His Met Thr Gln Glu Val Val Thr Gln Tyr Tyr Arg Ala Pro Glu  
  210                  215                  220

Ile Leu Met Gly Ser Arg His Tyr Ser Asn Ala Ile Asp Ile Trp Ser  
  225                  230                  235                  240

Val Gly Cys Ile Phe Ala Glu Leu Leu Gly Arg Arg Ile Leu Phe Gln  
245 250 255

Ala Gln Ser Pro Ile Gln Gln Leu Asp Leu Ile Thr Asp Leu Leu Gly  
260 265 270

Thr Pro Ser Leu Glu Ala Met Arg Thr Ala Cys Glu Gly Ala Lys Ala  
275 280 285

His Ile Leu Arg Gly Pro His Lys Gln Pro Ser Leu Pro Val Leu Tyr  
290 295 300

Thr Leu Ser Ser Gln Ala Thr His Glu Ala Val His Leu Leu Cys Arg  
305 310 315 320

Met Leu Val Phe Asp Pro Ser Lys Arg Ile Ser Ala Lys Asp Ala Leu  
325 330 335

Ala His Pro Tyr Leu Asp Glu Gly Arg Leu Arg Tyr His Thr Cys Met  
340 345 350

Cys Lys Cys Cys Phe Ser Thr Ser Thr Gly Arg Val Tyr Thr Ser Asp  
355 360 365

Phe Glu Pro Val Thr Asn Pro Lys Phe Asp Asp Thr Phe Glu Lys Asn  
370 375 380

Leu Ser Ser Val Arg Gln Val  
385 390

<210> 99  
<211> 315  
<212> PRT  
<213> Homo sapiens

<400> 99  
Met Ser Lys Val Phe Ser Gly Lys Arg Leu Glu Ala Glu Phe Pro Pro  
1 5 10 15

His His Ser Gln Ser Thr Phe Arg Lys Thr Ser Pro Ala Pro Gly Gly  
20 25 30

Pro Ala Gly Glu Gly Pro Leu Gln Ser Leu Thr Cys Leu Ile Gly Glu  
35 40 45

Lys Asp Leu Arg Leu Leu Glu Lys Leu Gly Asp Gly Ser Phe Gly Val  
50 55 60

Val Arg Arg Gly Glu Trp Asp Ala Pro Ser Gly Lys Thr Val Ser Val  
65 70 75 80

Ala Val Lys Cys Leu Lys Pro Asp Val Leu Ser Gln Pro Glu Ala Met  
85 90 95

Asp Asp Phe Ile Arg Glu Val Asn Ala Met His Ser Leu Asp His Arg  
100 105 110

Asn Leu Ile Arg Leu Tyr Gly Val Val Leu Thr Pro Pro Met Lys Met  
 115 120 125

Val Thr Glu Leu Ala Pro Leu Gly Ser Leu Leu Asp Arg Leu Arg Lys  
 130 135 140

His Gln Gly His Phe Leu Leu Gly Thr Leu Ser Arg Tyr Ala Val Gln  
 145 150 155 160

Val Ala Glu Gly Met Gly Tyr Leu Glu Ser Lys Arg Phe Ile His Arg  
 165 170 175

Asp Leu Ala Ala Arg Asn Leu Leu Leu Ala Thr Arg Asp Leu Val Lys  
 180 185 190

Ile Gly Asp Phe Gly Leu Met Arg Ala Leu Pro Gln Asn Asp Asp His  
 195 200 205

Tyr Val Met Gln Glu His Arg Lys Val Pro Phe Ala Trp Cys Ala Pro  
 210 215 220

Glu Ser Leu Lys Thr Arg Thr Phe Ser His Ala Ser Asp Thr Trp Met  
 225 230 235 240

Phe Gly Val Thr Leu Trp Glu Met Phe Thr Tyr Gly Gln Glu Pro Trp  
 245 250 255

Ile Gly Leu Asn Gly Ser Gln Ile Leu His Lys Ile Asp Lys Glu Gly  
 260 265 270

Glu Arg Leu Pro Arg Pro Glu Asp Cys Pro Gln Asp Ile Tyr Asn Val  
 275 280 285

Met Val Gln Cys Trp Ala His Lys Pro Glu Asp Arg Pro Thr Phe Val  
 290 295 300

Ala Leu Arg Asp Phe Leu Leu Glu Ala Gln Pro  
 305 310 315

<210> 100

<211> 359

<212> PRT

<213> Homo sapiens

<400> 100

Leu Gly Ile Gly Leu Phe Met Arg Arg Arg His Ile Val Arg Lys Arg  
 1 5 10 15

Thr Leu Arg Arg Leu Leu Gln Glu Arg Glu Leu Val Glu Pro Leu Thr  
 20 25 30

Pro Ser Gly Glu Ala Pro Asn Gln Ala Leu Leu Arg Ile Leu Lys Glu  
 35 40 45

Thr Glu Phe Lys Lys Ile Lys Val Leu Gly Ser Gly Ala Phe Gly Thr  
 50 55 60

Val	Tyr	Lys	Gly	Leu	Trp	Ile	Pro	Glu	Gly	Glu	Lys	Val	Lys	Ile	Pro	65	70	75	80
Val	Ala	Ile	Lys	Glu	Leu	Arg	Glu	Ala	Thr	Ser	Pro	Lys	Ala	Asn	Lys	85	90	95	
Glu	Ile	Leu	Asp	Glu	Ala	Tyr	Val	Met	Ala	Ser	Val	Asp	Asn	Pro	His	100	105	110	
Val	Cys	Arg	Leu	Leu	Gly	Ile	Cys	Leu	Thr	Ser	Thr	Val	Gln	Leu	Ile	115	120	125	
Thr	Gln	Leu	Met	Pro	Phe	Gly	Cys	Leu	Leu	Asp	Tyr	Val	Arg	Glu	His	130	135	140	
Lys	Asp	Asn	Ile	Gly	Ser	Gln	Tyr	Leu	Leu	Asn	Trp	Cys	Val	Gln	Ile	145	150	155	160
Ala	Lys	Gly	Met	Asn	Tyr	Leu	Glu	Asp	Arg	Arg	Leu	Val	His	Arg	Asp	165	170	175	
Leu	Ala	Ala	Arg	Asn	Val	Leu	Val	Lys	Thr	Pro	Gln	His	Val	Lys	Ile	180	185	190	
Thr	Asp	Phe	Gly	Leu	Ala	Lys	Leu	Leu	Gly	Ala	Glu	Glu	Lys	Glu	Tyr	195	200	205	
His	Ala	Glu	Gly	Gly	Lys	Val	Pro	Ile	Lys	Trp	Met	Ala	Leu	Glu	Ser	210	215	220	
Ile	Leu	His	Arg	Ile	Tyr	Thr	His	Gln	Ser	Asp	Val	Trp	Ser	Tyr	Gly	225	230	235	240
Val	Thr	Val	Trp	Glu	Leu	Met	Thr	Phe	Gly	Ser	Lys	Pro	Tyr	Asp	Gly	245	250	255	
Ile	Pro	Ala	Ser	Glu	Ile	Ser	Ser	Ile	Leu	Glu	Lys	Gly	Glu	Arg	Leu	260	265	270	
Pro	Gln	Pro	Pro	Ile	Cys	Thr	Ile	Asp	Val	Tyr	Met	Ile	Met	Val	Lys	275	280	285	
Cys	Trp	Met	Ile	Asp	Ala	Asp	Ser	Arg	Pro	Lys	Phe	Arg	Glu	Leu	Ile	290	295	300	
Ile	Glu	Phe	Ser	Lys	Met	Ala	Arg	Asp	Pro	Gln	Arg	Tyr	Leu	Val	Ile	305	310	315	320
Gln	Gly	Asp	Glu	Arg	Met	His	Leu	Pro	Ser	Pro	Thr	Asp	Ser	Asn	Phe	325	330	335	
Tyr	Arg	Ala	Leu	Met	Asp	Glu	Glu	Asp	Met	Asp	Asp	Val	Val	Asp	Ala	340	345	350	
Asp	Glu	Tyr	Leu	Ile	Pro	Gln	355												

<210> 101  
 <211> 370  
 <212> PRT  
 <213> Homo sapiens

<400> 101  
 Glu Pro Thr Val Glu Arg Gly Glu Leu Val Val Arg Tyr Arg Val Arg  
   1                  5                  10                  15  
 Lys Ser Tyr Ser Arg Arg Thr Thr Glu Ala Thr Leu Asn Ser Leu Gly  
           20                  25                  30  
 Ile Ser Glu Glu Leu Lys Glu Lys Leu Arg Asp Val Met Val Asp Arg  
           35                  40                  45  
 His Lys Val Ala Leu Gly Lys Thr Leu Gly Glu Gly Glu Phe Gly Ala  
       50                  55                  60  
 Val Met Glu Gly Gln Leu Asn Gln Asp Asp Ser Ile Leu Lys Val Ala  
       65                  70                  75                  80  
 Val Lys Thr Met Lys Ile Ala Ile Cys Thr Arg Ser Glu Leu Glu Asp  
           85                  90                  95  
 Phe Leu Ser Glu Ala Val Cys Met Lys Glu Phe Asp His Pro Asn Val  
          100                 105                 110  
 Met Arg Leu Ile Gly Val Cys Phe Gln Gly Ser Glu Arg Glu Ser Phe  
      115                 120                 125  
 Pro Ala Pro Val Val Ile Leu Pro Phe Met Lys His Gly Asp Leu His  
      130                 135                 140  
 Ser Phe Leu Leu Tyr Ser Arg Leu Gly Asp Gln Pro Val Tyr Leu Pro  
      145                 150                 155                 160  
 Thr Gln Met Leu Val Lys Phe Met Ala Asp Ile Ala Ser Gly Met Glu  
          165                 170                 175  
 Tyr Leu Ser Thr Lys Arg Phe Ile His Arg Asp Leu Ala Ala Arg Asn  
          180                 185                 190  
 Cys Met Leu Asn Glu Asn Met Ser Val Cys Val Ala Asp Phe Gly Leu  
      195                 200                 205  
 Ser Lys Lys Ile Tyr Asn Gly Asp Tyr Tyr Arg Gln Gly Arg Ile Ala  
      210                 215                 220  
 Lys Met Pro Val Lys Trp Ile Ala Ile Glu Ser Leu Ala Asp Arg Val  
      225                 230                 235                 240  
 Tyr Thr Ser Lys Ser Asp Val Trp Ser Phe Gly Val Thr Met Trp Glu  
          245                 250                 255  
 Ile Ala Thr Arg Gly Gln Thr Pro Tyr Pro Gly Val Glu Asn Ser Glu  
      260                 265                 270

Ile Tyr Asp Tyr Leu Arg Gln Gly Asn Arg Leu Lys Gln Pro Ala Asp  
 275 280 285

Cys Leu Asp Gly Leu Tyr Ala Leu Met Ser Arg Cys Trp Glu Leu Asn  
 290 295 300

Pro Gln Asp Arg Pro Ser Phe Thr Glu Leu Arg Glu Asp Leu Glu Asn  
 305 310 315 320

Thr Leu Lys Ala Leu Pro Pro Ala Gln Glu Pro Asp Glu Ile Leu Tyr  
 325 330 335

Val Asn Met Asp Glu Gly Gly Gly Tyr Pro Glu Pro Pro Gly Ala Ala  
 340 345 350

Gly Gly Ala Asp Pro Pro Thr Gln Pro Asp Pro Lys Asp Ser Cys Ser  
 355 360 365

Cys Leu  
 370

<210> 102

<211> 362

<212> PRT

<213> Homo sapiens

<400> 102

Leu Thr Asp Met Ser Pro Ile Leu Thr Ser Gly Asp Ser Asp Ile Ser  
 1 5 10 15

Ser Pro Leu Leu Gln Asn Thr Val His Ile Asp Leu Ser Ala Leu Asn  
 20 25 30

Pro Glu Leu Val Gln Ala Val Gln His Val Val Ile Gly Pro Ser Ser  
 35 40 45

Leu Ile Val His Phe Asn Glu Val Ile Gly Arg Gly His Phe Gly Cys  
 50 55 60

Val Tyr His Gly Thr Leu Leu Asp Asn Asp Gly Lys Lys Ile His Cys  
 65 70 75 80

Ala Val Lys Ser Leu Asn Arg Ile Thr Asp Ile Gly Glu Val Ser Gln  
 85 90 95

Phe Leu Thr Glu Gly Ile Ile Met Lys Asp Phe Ser His Pro Asn Val  
 100 105 110

Leu Ser Leu Leu Gly Ile Cys Leu Arg Ser Glu Gly Ser Pro Leu Val  
 115 120 125

Val Leu Pro Tyr Met Lys His Gly Asp Leu Arg Asn Phe Ile Arg Asn  
 130 135 140

Glu Thr His Asn Pro Thr Val Lys Asp Leu Ile Gly Phe Gly Leu Gln  
 145 150 155 160

127

Val Ala Lys Ala Met Lys Tyr Leu Ala Ser Lys Lys Phe Val His Arg  
165 170 175

Asp Leu Ala Ala Arg Asn Cys Met Leu Asp Glu Lys Phe Thr Val Lys  
180 185 190

Val Ala Asp Phe Gly Leu Ala Arg Asp Met Tyr Asp Lys Glu Tyr Tyr  
195 200 205

Ser Val His Asn Lys Thr Gly Ala Lys Leu Pro Val Lys Trp Met Ala  
210 215 220

Leu Glu Ser Leu Gln Thr Gln Lys Phe Thr Thr Lys Ser Asp Val Trp  
225 230 235 240

Ser Phe Gly Val Val Leu Trp Glu Leu Met Thr Arg Gly Ala Pro Pro  
245 250 255

Tyr Pro Asp Val Asn Thr Phe Asp Ile Thr Val Tyr Leu Leu Gln Gly  
260 265 270

Arg Arg Leu Leu Gln Pro Glu Tyr Cys Pro Asp Pro Leu Tyr Glu Val  
275 280 285

Met Leu Lys Cys Trp His Pro Lys Ala Glu Met Arg Pro Ser Phe Ser  
290 295 300

Glu Leu Val Ser Arg Ile Ser Ala Ile Phe Ser Thr Phe Ile Gly Glu  
305 310 315 320

His Tyr Val His Val Asn Ala Thr Tyr Val Asn Val Lys Cys Val Ala  
325 330 335

Pro Tyr Pro Ser Leu Leu Ser Ser Glu Asp Asn Ala Asp Asp Glu Val  
340 345 350

Asp Thr Arg Pro Ala Ser Phe Trp Glu Thr  
355 360

<210> 103

<211> 315

<212> PRT

<213> Homo sapiens

<400> 103

Asn Pro Tyr Glu Pro Glu Leu Ala Pro Trp Ala Ala Asp Lys Gly Pro  
1 5 10 15

Gln Arg Glu Ala Leu Pro Met Asp Thr Glu Val Tyr Glu Ser Pro Tyr  
20 25 30

Ala Asp Pro Glu Glu Ile Arg Pro Lys Glu Val Tyr Leu Asp Arg Lys  
35 40 45

Leu Leu Thr Leu Glu Asp Lys Glu Leu Gly Ser Gly Asn Phe Gly Thr  
50 55 60

128

Val	Lys	Lys	Gly	Tyr	Tyr	Gln	Met	Lys	Lys	Val	Val	Lys	Thr	Val	Ala	
65					70					75					80	
Val	Lys	Ile	Leu	Lys	Asn	Glu	Ala	Asn	Asp	Pro	Ala	Leu	Lys	Asp	Glu	
				85					90					95		
Leu	Leu	Ala	Glu	Ala	Asn	Val	Met	Gln	Gln	Leu	Asp	Asn	Pro	Tyr	Ile	
			100					105					110			
Val	Arg	Met	Ile	Gly	Ile	Cys	Glu	Ala	Glu	Ser	Trp	Met	Leu	Val	Met	
		115					120					125				
Glu	Met	Ala	Glu	Leu	Gly	Pro	Leu	Asn	Lys	Tyr	Leu	Gln	Gln	Asn	Arg	
		130				135						140				
His	Val	Lys	Asp	Lys	Asn	Ile	Ile	Glu	Leu	Val	His	Gln	Val	Ser	Met	
145					150					155					160	
Gly	Met	Lys	Tyr	Leu	Glu	Glu	Ser	Asn	Phe	Val	His	Arg	Asp	Leu	Ala	
				165					170					175		
Ala	Arg	Asn	Val	Leu	Leu	Val	Thr	Gln	His	Tyr	Ala	Lys	Ile	Ser	Asp	
			180					185					190			
Phe	Gly	Leu	Ser	Lys	Ala	Leu	Arg	Ala	Asp	Glu	Asn	Tyr	Tyr	Lys	Ala	
		195					200					205				
Gln	Thr	His	Gly	Lys	Trp	Pro	Val	Lys	Trp	Tyr	Ala	Pro	Glu	Cys	Ile	
	210					215					220					
Asn	Tyr	Tyr	Lys	Phe	Ser	Ser	Lys	Ser	Asp	Val	Trp	Ser	Phe	Gly	Val	
225					230					235					240	
Leu	Met	Trp	Glu	Ala	Phe	Ser	Tyr	Gly	Gln	Lys	Pro	Tyr	Arg	Gly	Met	
				245					250					255		
Lys	Gly	Ser	Glu	Val	Thr	Ala	Met	Leu	Glu	Lys	Gly	Glu	Arg	Met	Gly	
			260					265					270			
Cys	Pro	Ala	Gly	Cys	Pro	Arg	Glu	Met	Tyr	Asp	Leu	Met	Asn	Leu	Cys	
		275					280					285				
Trp	Thr	Tyr	Asp	Val	Glu	Asn	Arg	Pro	Gly	Phe	Ala	Ala	Val	Glu	Leu	
	290					295					300					
Arg	Leu	Arg	Asn	Tyr	Tyr	Tyr	Asp	Val	Val	Asn						
305					310					315						
<210> 104																
<211> 309																
<212> PRT																
<213> Homo sapiens																
<400> 104																
Asn	Lys	Leu	Glu	Glu	Gln	Asn	Pro	Asp	Ile	Val	Ser	Arg	Lys	Lys	Asn	
1					5				10					15		



Gln Pro Thr Glu Val Asp Pro Thr His Phe Glu Lys Arg Phe Leu Lys  
 20 25 30  
 Arg Ile Arg Asp Leu Gly Glu Gly His Phe Gly Lys Val Glu Leu Cys  
 35 40 45  
 Arg Tyr Asp Pro Glu Asp Asn Thr Gly Glu Gln Val Ala Val Lys Ser  
 50 55 60  
 Leu Lys Pro Glu Ser Gly Gly Asn His Ile Ala Asp Leu Lys Lys Glu  
 65 70 75 80  
 Ile Glu Ile Leu Arg Asn Leu Tyr His Glu Asn Ile Val Lys Tyr Lys  
 85 90 95  
 Gly Ile Cys Thr Glu Asp Gly Gly Asn Gly Ile Lys Leu Ile Met Glu  
 100 105 110  
 Phe Leu Pro Ser Gly Ser Leu Lys Glu Tyr Leu Pro Lys Asn Lys Asn  
 115 120 125  
 Lys Ile Asn Leu Lys Gln Gln Leu Lys Tyr Ala Val Gln Ile Cys Lys  
 130 135 140  
 Gly Met Asp Tyr Leu Gly Ser Arg Gln Tyr Val His Arg Asp Leu Ala  
 145 150 155 160  
 Ala Arg Asn Val Leu Val Glu Ser Glu His Gln Val Lys Ile Gly Asp  
 165 170 175  
 Phe Gly Leu Thr Lys Ala Ile Glu Thr Asp Lys Glu Tyr Tyr Thr Val  
 180 185 190  
 Lys Asp Asp Arg Asp Ser Pro Val Phe Trp Tyr Ala Pro Glu Cys Leu  
 195 200 205  
 Met Gln Ser Lys Phe Tyr Ile Ala Ser Asp Val Trp Ser Phe Gly Val  
 210 215 220  
 Thr Leu His Glu Leu Leu Thr Tyr Cys Asp Ser Asp Ser Ser Pro Met  
 225 230 235 240  
 Ala Leu Phe Leu Lys Met Ile Gly Pro Thr His Gly Gln Met Thr Val  
 245 250 255  
 Thr Arg Leu Val Asn Thr Leu Lys Glu Gly Lys Arg Leu Pro Cys Pro  
 260 265 270  
 Pro Asn Cys Pro Asp Glu Val Tyr Gln Leu Met Arg Lys Cys Trp Glu  
 275 280 285  
 Phe Gln Pro Ser Asn Arg Thr Ser Phe Gln Asn Leu Ile Glu Gly Phe  
 290 295 300  
 Glu Ala Leu Leu Lys  
 305

<210> 105  
 <211> 328  
 <212> PRT  
 <213> Homo sapiens

<400> 105

Thr	Thr	Gln	Tyr	Leu	Arg	Ala	Asp	Thr	Pro	Asn	Asn	Ala	Thr	Pro	Ile
1				5					10					15	
Thr	Ser	Tyr	Pro	Thr	Leu	Arg	Ile	Glu	Lys	Asn	Asp	Leu	Arg	Ser	Val
			20					25					30		
Thr	Leu	Leu	Glu	Ala	Lys	Gly	Lys	Val	Lys	Asp	Ile	Ala	Ile	Ser	Arg
		35					40					45			
Glu	Arg	Ile	Thr	Leu	Lys	Asp	Val	Leu	Gln	Glu	Gly	Thr	Phe	Gly	Arg
	50					55					60				
Ile	Phe	His	Gly	Ile	Leu	Ile	Asp	Glu	Lys	Asp	Pro	Asn	Lys	Glu	Lys
65					70					75					80
Gln	Ala	Phe	Val	Lys	Thr	Val	Lys	Asp	Gln	Ala	Ser	Glu	Ile	Gln	Val
				85					90					95	
Thr	Met	Met	Leu	Thr	Glu	Ser	Cys	Lys	Leu	Arg	Gly	Leu	His	His	Arg
			100					105					110		
Asn	Leu	Leu	Pro	Ile	Thr	His	Val	Cys	Ile	Glu	Glu	Gly	Glu	Lys	Pro
			115				120					125			
Met	Val	Ile	Leu	Pro	Tyr	Met	Asn	Trp	Gly	Asn	Leu	Lys	Leu	Phe	Leu
	130					135					140				
Arg	Gln	Cys	Lys	Leu	Val	Glu	Ala	Asn	Asn	Pro	Gln	Ala	Ile	Ser	Gln
145					150					155					160
Gln	Asp	Leu	Val	His	Met	Ala	Ile	Gln	Ile	Ala	Cys	Gly	Met	Ser	Tyr
				165					170					175	
Leu	Ala	Arg	Arg	Glu	Val	Ile	His	Lys	Asp	Leu	Ala	Ala	Arg	Asn	Cys
				180				185					190		
Val	Ile	Asp	Asp	Thr	Leu	Gln	Val	Lys	Ile	Thr	Asp	Asn	Ala	Leu	Ser
		195					200					205			
Arg	Asp	Leu	Phe	Pro	Met	Asp	Tyr	His	Cys	Leu	Gly	Asp	Asn	Glu	Asn
	210					215					220				
Arg	Pro	Val	Arg	Trp	Met	Ala	Leu	Glu	Ser	Leu	Val	Asn	Asn	Glu	Phe
225					230					235					240
Ser	Ser	Ala	Ser	Asp	Val	Trp	Ala	Phe	Gly	Val	Thr	Leu	Trp	Glu	Leu
				245					250					255	
Met	Thr	Leu	Gly	Gln	Thr	Pro	Tyr	Val	Asp	Ile	Asp	Pro	Phe	Glu	Met
			260					265					270		

Ala Ala Tyr Leu Lys Asp Gly Tyr Arg Ile Ala Gln Pro Ile Asn Cys  
 275 280 285

Pro Asp Glu Leu Phe Ala Val Met Ala Cys Cys Trp Ala Leu Asp Pro  
 290 295 300

Glu Glu Arg Pro Lys Phe Gln Gln Leu Val Gln Cys Leu Thr Glu Phe  
 305 310 315 320

His Ala Ala Leu Gly Ala Tyr Val  
 325

<210> 106

<211> 361

<212> PRT

<213> Homo sapiens

<400> 106

Gln Thr Glu Ser Ser Thr Pro Pro Gly Ile Pro Gly Gly Ser Arg Gln  
 1 5 10 15

Gly Pro Ala Met Asp Gly Thr Ala Ala Glu Pro Arg Pro Gly Ala Gly  
 20 25 30

Ser Leu Gln His Ala Gln Pro Pro Pro Gln Pro Arg Lys Lys Arg Pro  
 35 40 45

Glu Asp Phe Lys Phe Gly Lys Ile Leu Gly Glu Gly Ser Phe Ser Thr  
 50 55 60

Val Val Leu Ala Arg Glu Leu Ala Thr Ser Arg Glu Tyr Ala Ile Lys  
 65 70 75 80

Ile Leu Glu Lys Arg His Ile Ile Lys Glu Asn Lys Val Pro Tyr Val  
 85 90 95

Thr Arg Glu Arg Asp Val Met Ser Arg Leu Asp His Pro Phe Phe Val  
 100 105 110

Lys Leu Tyr Phe Thr Phe Gln Asp Asp Glu Lys Leu Tyr Phe Gly Leu  
 115 120 125

Ser Tyr Ala Lys Asn Gly Glu Leu Leu Lys Tyr Ile Arg Lys Ile Gly  
 130 135 140

Ser Phe Asp Glu Thr Cys Thr Arg Phe Tyr Thr Ala Glu Ile Val Ser  
 145 150 155 160

Ala Leu Glu Tyr Leu His Gly Lys Gly Ile Ile His Arg Asp Leu Lys  
 165 170 175

Pro Glu Asn Ile Leu Leu Asn Glu Asp Met His Ile Gln Ile Thr Asp  
 180 185 190

Phe Gly Thr Ala Lys Val Leu Ser Pro Glu Ser Lys Gln Ala Arg Ala  
 195 200 205

Asn Ser Phe Val Gly Thr Ala Gln Tyr Val Ser Pro Glu Leu Leu Thr  
 210 215 220  
 Glu Lys Ser Ala Cys Lys Ser Ser Asp Leu Trp Ala Leu Gly Cys Ile  
 225 230 235 240  
 Ile Tyr Gln Leu Val Ala Gly Leu Pro Pro Phe Arg Ala Gly Asn Glu  
 245 250 255  
 Tyr Leu Ile Phe Gln Lys Ile Ile Lys Leu Glu Tyr Asp Phe Pro Glu  
 260 265 270  
 Lys Phe Phe Pro Lys Ala Arg Asp Leu Val Glu Lys Leu Leu Val Leu  
 275 280 285  
 Asp Ala Thr Lys Arg Leu Gly Cys Glu Glu Met Glu Gly Tyr Gly Pro  
 290 295 300  
 Leu Lys Ala His Pro Phe Phe Glu Ser Val Thr Trp Glu Asn Leu His  
 305 310 315 320  
 Gln Gln Thr Pro Pro Lys Leu Thr Ala Tyr Leu Pro Ala Met Ser Glu  
 325 330 335  
 Asp Asp Glu Asp Cys Tyr Gly Asn Tyr Asp Asn Leu Leu Ser Gln Phe  
 340 345 350  
 Gly Cys Met Gln Val Ser Ser Ser Ser  
 355 360

&lt;210&gt; 107

&lt;211&gt; 280

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 107

Gln Trp Lys Trp Leu Glu Ala Gln Pro Met Gly Glu Asp Trp Phe Leu  
 1 5 10 15  
 Asp Phe Arg Val Leu Gly Lys Gly Gly Phe Gly Glu Val Ser Ala Cys  
 20 25 30  
 Gln Met Lys Ala Thr Gly Lys Leu Tyr Ala Cys Lys Lys Leu Asn Lys  
 35 40 45  
 Lys Arg Leu Lys Lys Arg Lys Gly Tyr Gln Gly Ala Met Val Glu Lys  
 50 55 60  
 Lys Ile Leu Met Lys Val His Ser Arg Phe Ile Val Ser Leu Ala Tyr  
 65 70 75 80  
 Ala Phe Glu Thr Lys Ala Asp Leu Cys Leu Val Met Thr Ile Met Asn  
 85 90 95  
 Gly Gly Asp Ile Arg Tyr His Ile Tyr Asn Val Asn Glu Glu Asn Pro  
 100 105 110

Gly Phe Pro Glu Pro Arg Ala Leu Phe Tyr Thr Ala Gln Ile Ile Cys  
 115 120 125

Gly Leu Glu His Leu His Gln Arg Arg Ile Val Tyr Arg Asp Leu Lys  
 130 135 140

Pro Glu Asn Val Leu Leu Asp Asn Asp Gly Asn Val Arg Ile Ser Asp  
 145 150 155 160

Leu Gly Leu Ala Val Glu Leu Leu Asp Gly Gln Ser Lys Thr Lys Gly  
 165 170 175

Tyr Ala Gly Thr Pro Gly Phe Met Ala Pro Glu Leu Leu Gln Gly Glu  
 180 185 190

Glu Tyr Asp Phe Ser Val Asp Tyr Phe Ala Leu Gly Val Thr Leu Tyr  
 195 200 205

Glu Met Ile Ala Ala Arg Gly Pro Phe Arg Ala Arg Gly Glu Lys Val  
 210 215 220

Glu Asn Lys Glu Leu Lys His Arg Ile Ile Ser Glu Pro Val Lys Tyr  
 225 230 235 240

Pro Asp Lys Phe Ser Gln Ala Ser Lys Asp Phe Cys Glu Ala Leu Leu  
 245 250 255

Glu Lys Asp Pro Glu Lys Arg Leu Gly Phe Arg Asp Glu Thr Cys Asp  
 260 265 270

Lys Leu Arg Ala His Pro Leu Phe  
 275 280

<210> 108

<211> 375

<212> PRT

<213> Homo sapiens

<400> 108

Gly Leu Glu Pro Leu Leu Asp Leu Leu Leu Gly Val His Gln Glu Leu  
 1 5 10 15

Gly Ala Ser Glu Leu Ala Gln Asp Lys Tyr Val Ala Asp Phe Leu Gln  
 20 25 30

Trp Ala Glu Pro Ile Val Val Arg Leu Lys Glu Val Arg Leu Gln Arg  
 35 40 45

Asp Asp Phe Glu Ile Leu Lys Val Ile Gly Arg Gly Ala Phe Ser Glu  
 50 55 60

Val Ala Val Val Lys Met Lys Gln Thr Gly Gln Val Tyr Ala Met Lys  
 65 70 75 80

Ile Met Asn Lys Trp Asp Met Leu Lys Arg Gly Glu Val Ser Cys Phe  
 85 90 95

Arg	Glu	Glu	Arg	Asp	Val	Leu	Val	Asn	Gly	Asp	Arg	Arg	Trp	Ile	Thr	100	105	110	
Gln	Leu	His	Phe	Ala	Phe	Gln	Asp	Glu	Asn	Tyr	Leu	Tyr	Leu	Val	Met	115	120	125	
Glu	Tyr	Tyr	Val	Gly	Gly	Asp	Leu	Leu	Thr	Leu	Leu	Ser	Lys	Phe	Gly	130	135	140	
Glu	Arg	Ile	Pro	Ala	Glu	Met	Ala	Arg	Phe	Tyr	Leu	Ala	Glu	Ile	Val	145	150	155	160
Met	Ala	Ile	Asp	Ser	Val	His	Arg	Leu	Gly	Tyr	Val	His	Arg	Asp	Ile	165	170	175	
Lys	Pro	Asp	Asn	Ile	Leu	Leu	Asp	Arg	Cys	Gly	His	Ile	Arg	Leu	Ala	180	185	190	
Asp	Phe	Gly	Ser	Cys	Leu	Lys	Leu	Arg	Ala	Asp	Gly	Thr	Val	Arg	Ser	195	200	205	
Leu	Val	Ala	Val	Gly	Thr	Pro	Asp	Tyr	Leu	Ser	Pro	Glu	Ile	Leu	Gln	210	215	220	
Ala	Val	Gly	Gly	Gly	Pro	Gly	Thr	Gly	Ser	Tyr	Gly	Pro	Glu	Cys	Asp	225	230	235	240
Trp	Trp	Ala	Leu	Gly	Val	Phe	Ala	Tyr	Glu	Met	Phe	Tyr	Gly	Gln	Thr	245	250	255	
Pro	Phe	Tyr	Ala	Asp	Ser	Thr	Ala	Glu	Thr	Tyr	Gly	Lys	Ile	Val	His	260	265	270	
Tyr	Lys	Glu	His	Leu	Ser	Leu	Pro	Leu	Val	Asp	Glu	Gly	Val	Pro	Glu	275	280	285	
Glu	Ala	Arg	Asp	Phe	Ile	Gln	Arg	Leu	Leu	Cys	Pro	Pro	Glu	Thr	Arg	290	295	300	
Leu	Gly	Arg	Gly	Gly	Ala	Gly	Asp	Phe	Arg	Thr	His	Pro	Phe	Phe	Phe	305	310	315	320
Gly	Leu	Asp	Trp	Asp	Gly	Leu	Arg	Asp	Ser	Val	Pro	Pro	Phe	Thr	Pro	325	330	335	
Asp	Phe	Glu	Gly	Ala	Thr	Asp	Thr	Cys	Asn	Phe	Asp	Leu	Val	Glu	Asp	340	345	350	
Gly	Leu	Thr	Ala	Met	Val	Ser	Gly	Gly	Gly	Glu	Thr	Leu	Ser	Asp	Ile	355	360	365	
Arg	Glu	Gly	Ala	Pro	Leu	Gly										370	375		

<210> 109  
 <211> 395  
 <212> PRT  
 <213> Homo sapiens

<400> 109  
 Glu Glu Arg Glu Met Arg Gln Lys Lys Leu Glu Lys Val Met Glu Glu  
   1                  5                  10                  15  
 Glu Gly Leu Lys Asp Glu Glu Lys Arg Leu Arg Arg Ser Ala His Ala  
           20                  25                  30  
 Arg Lys Glu Thr Glu Phe Leu Arg Leu Lys Arg Thr Arg Leu Gly Leu  
           35                  40                  45  
 Glu Asp Phe Glu Ser Leu Lys Val Ile Gly Arg Gly Ala Phe Gly Glu  
           50                  55                  60  
 Val Arg Leu Val Gln Lys Lys Asp Thr Gly His Val Tyr Ala Met Lys  
           65                  70                  75                  80  
 Ile Leu Arg Lys Ala Asp Met Leu Glu Lys Glu Gln Val Gly His Ile  
                   85                  90                  95  
 Arg Ala Glu Arg Asp Ile Leu Val Glu Ala Asp Ser Leu Trp Val Val  
                   100                  105                  110  
 Lys Met Phe Tyr Ser Phe Gln Asp Lys Leu Asn Leu Tyr Leu Ile Met  
           115                  120                  125  
 Glu Phe Leu Pro Gly Gly Asp Met Met Thr Leu Leu Met Lys Lys Asp  
           130                  135                  140  
 Thr Leu Thr Glu Glu Glu Thr Gln Phe Tyr Ile Ala Glu Thr Val Leu  
   145                  150                  155                  160  
 Ala Ile Asp Ser Ile His Gln Leu Gly Phe Ile His Arg Asp Ile Lys  
                   165                  170                  175  
 Pro Asp Asn Leu Leu Leu Asp Ser Lys Gly His Val Lys Leu Ser Asp  
                   180                  185                  190  
 Phe Gly Leu Cys Thr Gly Leu Lys Lys Ala His Arg Thr Glu Phe Tyr  
           195                  200                  205  
 Arg Asn Leu Asn His Ser Leu Pro Ser Asp Phe Thr Phe Gln Asn Met  
           210                  215                  220  
 Asn Ser Lys Arg Lys Ala Glu Thr Trp Lys Arg Asn Arg Arg Gln Leu  
   225                  230                  235                  240  
 Ala Phe Ser Thr Val Gly Thr Pro Asp Tyr Ile Ala Pro Glu Val Phe  
                   245                  250                  255  
 Met Gln Thr Gly Tyr Asn Lys Leu Cys Asp Trp Trp Ser Leu Gly Val  
           260                  265                  270

Ile Met Tyr Glu Met Leu Ile Gly Tyr Pro Pro Phe Cys Ser Glu Thr  
 275 280 285  
 Pro Gln Glu Thr Tyr Lys Lys Val Met Asn Trp Lys Glu Thr Leu Thr  
 290 295 300  
 Phe Pro Pro Glu Val Pro Ile Ser Glu Lys Ala Lys Asp Leu Ile Leu  
 305 310 315 320  
 Arg Phe Cys Cys Glu Trp Glu His Arg Ile Gly Ala Pro Gly Val Glu  
 325 330 335  
 Glu Ile Lys Ser Asn Ser Phe Phe Glu Gly Val Asp Trp Glu His Ile  
 340 345 350  
 Arg Glu Arg Pro Ala Ala Ile Ser Ile Glu Ile Lys Ser Ile Asp Asp  
 355 360 365  
 Thr Ser Asn Phe Asp Glu Phe Pro Glu Ser Asp Ile Leu Lys Pro Thr  
 370 375 380  
 Val Ala Thr Ser Asn His Pro Glu Thr Asp Tyr  
 385 390 395

<210> 110  
 <211> 334  
 <212> PRT  
 <213> Homo sapiens

<400> 110  
 Met Asn Arg Tyr Thr Thr Met Arg Gln Leu Gly Asp Gly Thr Tyr Gly  
 1 5 10 15  
 Ser Val Leu Met Gly Lys Ser Asn Glu Ser Gly Glu Leu Val Ala Ile  
 20 25 30  
 Lys Arg Met Lys Arg Lys Phe Tyr Ser Trp Asp Glu Cys Met Asn Leu  
 35 40 45  
 Arg Glu Val Lys Ser Leu Lys Lys Leu Asn His Ala Asn Val Ile Lys  
 50 55 60  
 Leu Lys Glu Val Ile Arg Glu Asn Asp His Leu Tyr Phe Ile Phe Glu  
 65 70 75 80  
 Tyr Met Lys Glu Asn Leu Tyr Gln Leu Met Lys Asp Arg Asn Lys Leu  
 85 90 95  
 Phe Pro Glu Ser Val Ile Arg Asn Ile Met Tyr Gln Ile Leu Gln Gly  
 100 105 110  
 Leu Ala Phe Ile His Lys His Gly Phe Phe His Arg Asp Met Lys Pro  
 115 120 125  
 Glu Asn Leu Leu Cys Met Gly Pro Glu Leu Val Lys Ile Ala Asp Phe  
 130 135 140



Gly Leu Ala Arg Glu Leu Arg Ser Gln Pro Pro Tyr Thr Asp Tyr Val  
 145 150 155 160  
 Ser Thr Arg Trp Tyr Arg Ala Pro Glu Val Leu Leu Arg Ser Ser Val  
 165 170 175  
 Tyr Ser Ser Pro Ile Asp Val Trp Ala Val Gly Ser Ile Met Ala Glu  
 180 185 190  
 Leu Tyr Met Leu Arg Pro Leu Phe Pro Gly Thr Ser Glu Val Asp Glu  
 195 200 205  
 Ile Phe Lys Ile Cys Gln Val Leu Gly Thr Pro Lys Lys Ser Asp Trp  
 210 215 220  
 Pro Glu Gly Tyr Gln Leu Ala Ser Ser Met Asn Phe Arg Phe Pro Gln  
 225 230 235 240  
 Cys Val Pro Ile Asn Leu Lys Thr Leu Ile Pro Asn Ala Ser Asn Glu  
 245 250 255  
 Ala Ile Gln Leu Met Thr Glu Met Leu Asn Trp Asp Pro Lys Lys Arg  
 260 265 270  
 Pro Thr Ala Ser Gln Ala Leu Lys His Pro Tyr Phe Gln Val Gly Gln  
 275 280 285  
 Val Leu Gly Pro Ser Ser Asn His Leu Glu Ser Lys Gln Ser Leu Asn  
 290 295 300  
 Lys Gln Leu Gln Pro Leu Glu Ser Lys Pro Ser Leu Val Glu Val Glu  
 305 310 315 320  
 Pro Lys Pro Leu Pro Asp Ile Ile Asp Gln Val Val Gly Gln  
 325 330

&lt;210&gt; 111

&lt;211&gt; 335

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 111

Met Lys Asn Tyr Lys Ala Ile Gly Lys Ile Gly Glu Gly Thr Phe Ser  
 1 5 10 15  
 Glu Val Met Lys Met Gln Ser Leu Arg Asp Gly Asn Tyr Tyr Ala Cys  
 20 25 30  
 Lys Gln Met Lys Gln Arg Phe Glu Ser Ile Glu Gln Val Asn Asn Leu  
 35 40 45  
 Arg Glu Ile Gln Ala Leu Arg Arg Leu Asn Pro His Pro Asn Ile Leu  
 50 55 60  
 Met Leu His Glu Val Val Phe Asp Arg Lys Ser Gly Ser Leu Ala Leu  
 65 70 75 80

138

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Ile Cys Glu Leu Met Asp Met Asn Ile Tyr Glu Leu Ile Arg Gly Arg
      85                      90                      95

Arg Tyr Pro Leu Ser Glu Lys Lys Ile Met His Tyr Met Tyr Gln Leu
      100                      105                      110

Cys Lys Ser Leu Asp His Ile His Arg Asn Gly Ile Phe His Arg Asp
      115                      120                      125

Val Lys Pro Glu Asn Ile Leu Ile Lys Gln Asp Val Leu Lys Leu Gly
      130                      135                      140

Asp Phe Gly Ser Cys Arg Ser Val Tyr Ser Lys Gln Pro Tyr Thr Glu
      145                      150                      155                      160

Tyr Ile Ser Thr Arg Trp Tyr Arg Ala Pro Glu Cys Leu Leu Thr Asp
      165                      170                      175

Gly Phe Tyr Thr Tyr Lys Met Asp Leu Trp Ser Ala Gly Cys Val Phe
      180                      185                      190

Tyr Glu Ile Ala Ser Leu Gln Pro Leu Phe Pro Gly Val Asn Glu Leu
      195                      200                      205

Asp Gln Ile Ser Lys Ile His Asp Val Ile Gly Thr Pro Ala Gln Lys
      210                      215                      220

Ile Leu Thr Lys Phe Lys Gln Ser Arg Ala Met Asn Phe Asp Phe Pro
      225                      230                      235                      240

Phe Lys Lys Gly Ser Gly Ile Pro Leu Leu Thr Thr Asn Leu Ser Pro
      245                      250                      255

Gln Cys Leu Ser Leu Leu His Ala Met Val Ala Tyr Asp Pro Asp Glu
      260                      265                      270

Arg Ile Ala Ala His Gln Ala Leu Gln His Pro Tyr Phe Gln Glu Gln
      275                      280                      285

Arg Lys Thr Glu Lys Arg Ala Leu Gly Ser His Arg Lys Ala Gly Phe
      290                      295                      300

Pro Glu His Pro Val Ala Pro Glu Pro Leu Ser Asn Ser Cys Gln Ile
      305                      310                      315                      320

Ser Lys Glu Gly Arg Lys Gln Lys Gln Ser Leu Lys Gln Glu Glu
      325                      330                      335

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<210> 112

<211> 375

<212> PRT

<213> Homo sapiens

<400> 112

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Gln Gln Ala Ala Pro Val Thr Ala Ala Ala Ala Ala Ala Pro Ala Ala
  1                      5                      10                      15

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Ala	Thr	Ala	Ala	Pro	Ala	Pro	Ala	Ala	Pro	Ala	Ala	Pro	Ala	Pro	Ala			
			20					25					30					
Pro	Ala	Pro	Ala	Pro	Ala	Ala	Gln	Ala	Val	Gly	Trp	Pro	Ile	Cys	Arg			
		35					40					45						
Asp	Ala	Tyr	Glu	Leu	Gln	Glu	Val	Ile	Gly	Ser	Gly	Ala	Thr	Ala	Val			
	50					55					60							
Val	Gln	Ala	Ala	Leu	Cys	Lys	Pro	Arg	Gln	Glu	Arg	Val	Ala	Ile	Lys			
	65				70					75					80			
Arg	Ile	Asn	Leu	Glu	Lys	Cys	Gln	Thr	Ser	Met	Asp	Glu	Leu	Leu	Lys			
			85						90					95				
Glu	Ile	Gln	Ala	Met	Ser	Gln	Cys	Ser	His	Pro	Asn	Val	Val	Thr	Tyr			
			100					105					110					
Tyr	Thr	Ser	Phe	Val	Val	Lys	Asp	Glu	Leu	Trp	Leu	Val	Met	Lys	Leu			
		115					120					125						
Leu	Ser	Gly	Gly	Ser	Met	Leu	Asp	Ile	Ile	Lys	Tyr	Ile	Val	Asn	Arg			
	130					135					140							
Gly	Glu	His	Lys	Asn	Gly	Val	Leu	Glu	Glu	Ala	Ile	Ile	Ala	Thr	Ile			
	145				150					155					160			
Leu	Lys	Glu	Val	Leu	Glu	Gly	Leu	Asp	Tyr	Leu	His	Arg	Asn	Gly	Gln			
			165					170					175					
Ile	His	Arg	Asp	Leu	Lys	Ala	Gly	Asn	Ile	Leu	Leu	Gly	Glu	Asp	Gly			
		180						185					190					
Ser	Val	Gln	Ile	Ala	Asp	Phe	Gly	Val	Ser	Ala	Phe	Leu	Ala	Thr	Gly			
		195					200					205						
Gly	Asp	Val	Thr	Arg	Asn	Lys	Val	Arg	Lys	Thr	Phe	Val	Gly	Thr	Pro			
	210					215					220							
Cys	Trp	Met	Ala	Pro	Glu	Val	Met	Glu	Gln	Val	Arg	Gly	Tyr	Asp	Phe			
	225				230					235					240			
Lys	Ala	Asp	Met	Trp	Ser	Phe	Gly	Ile	Thr	Ala	Ile	Glu	Leu	Ala	Thr			
			245					250						255				
Gly	Ala	Ala	Pro	Tyr	His	Lys	Tyr	Pro	Pro	Met	Lys	Val	Leu	Met	Leu			
			260					265					270					
Thr	Leu	Gln	Asn	Asp	Pro	Pro	Thr	Leu	Glu	Thr	Gly	Val	Glu	Asp	Lys			
		275					280					285						
Glu	Met	Met	Lys	Lys	Tyr	Gly	Lys	Ser	Phe	Arg	Lys	Leu	Leu	Ser	Leu			
	290					295					300							
Cys	Leu	Gln	Lys	Asp	Pro	Ser	Lys	Arg	Pro	Thr	Ala	Ala	Glu	Leu	Leu			
	305				310					315					320			

140

Lys Cys Lys Phe Phe Gln Lys Ala Lys Asn Arg Glu Tyr Leu Ile Glu  
325 330 335

Lys Leu Leu Thr Arg Thr Pro Asp Ile Ala Gln Arg Ala Lys Lys Val  
340 345 350

Arg Arg Val Pro Gly Ser Ser Gly His Leu His Lys Thr Glu Asp Gly  
355 360 365

Asp Trp Glu Trp Ser Asp Asp  
370 375

<210> 113

<211> 339

<212> PRT

<213> Homo sapiens

<400> 113

Met Glu Asp Asp Gly Lys Pro Arg Ala Pro Gln Ala Pro Leu His Ser  
1 5 10 15

Val Val Gln Gln Leu His Gly Lys Asn Leu Val Phe Ser Asp Gly Tyr  
20 25 30

Val Val Lys Glu Thr Ile Gly Val Gly Ser Tyr Ser Glu Cys Lys Arg  
35 40 45

Cys Val His Lys Ala Thr Asn Met Glu Tyr Ala Val Lys Val Ile Asp  
50 55 60

Lys Ser Lys Arg Asp Pro Ser Glu Glu Ile Glu Ile Leu Leu Arg Tyr  
65 70 75 80

Gly Gln His Pro Asn Ile Ile Thr Leu Lys Asp Val Tyr Asp Asp Gly  
85 90 95

Lys His Val Tyr Leu Val Thr Glu Leu Met Arg Gly Gly Glu Leu Leu  
100 105 110

Asp Lys Ile Leu Arg Gln Lys Phe Phe Ser Glu Arg Glu Ala Ser Phe  
115 120 125

Val Leu His Thr Ile Gly Lys Thr Val Glu Tyr Leu His Ser Gln Gly  
130 135 140

Val Val His Arg Asp Leu Lys Pro Ser Asn Ile Leu Tyr Val Asp Glu  
145 150 155 160

Ser Gly Asn Pro Glu Cys Leu Arg Ile Cys Asp Phe Gly Phe Ala Lys  
165 170 175

Gln Leu Arg Ala Glu Asn Gly Leu Leu Met Thr Pro Cys Tyr Thr Ala  
180 185 190

Asn Phe Val Ala Pro Glu Val Leu Lys Arg Gln Gly Tyr Asp Glu Gly  
195 200 205

Cys Asp Ile Trp Ser Leu Gly Ile Leu Leu Tyr Thr Met Leu Ala Gly  
 210 215 220  
 Tyr Thr Pro Phe Ala Asn Gly Pro Ser Asp Thr Pro Glu Glu Ile Leu  
 225 230 235 240  
 Thr Arg Ile Gly Ser Gly Lys Phe Thr Leu Ser Gly Gly Asn Trp Asn  
 245 250 255  
 Thr Val Ser Glu Thr Ala Lys Asp Leu Val Ser Lys Met Leu His Val  
 260 265 270  
 Asp Pro His Gln Arg Leu Thr Ala Lys Gln Val Leu Gln His Pro Trp  
 275 280 285  
 Val Thr Gln Lys Asp Lys Leu Pro Gln Ser Gln Leu Ser His Gln Asp  
 290 295 300  
 Leu Gln Leu Val Lys Gly Ala Met Ala Ala Thr Tyr Ser Ala Leu Asn  
 305 310 315 320  
 Ser Ser Lys Pro Thr Pro Gln Leu Lys Pro Ile Glu Ser Ser Ile Leu  
 325 330 335  
 Ala Gln Arg

<210> 114  
 <211> 357  
 <212> PRT  
 <213> Homo sapiens

<400> 114  
 Phe Pro Ala Pro Ala Pro Pro Pro Gln Pro Pro Thr Pro Ala Leu Pro  
 1 5 10 15  
 His Pro Pro Ala Gln Pro Pro Pro Pro Pro Pro Gln Gln Phe Pro Gln  
 20 25 30  
 Phe His Val Lys Ser Gly Leu Gln Ile Lys Lys Asn Ala Ile Ile Asp  
 35 40 45  
 Asp Tyr Lys Val Thr Ser Gln Val Leu Gly Leu Gly Ile Asn Gly Lys  
 50 55 60  
 Val Leu Gln Ile Phe Asn Lys Arg Thr Gln Glu Lys Phe Ala Leu Lys  
 65 70 75 80  
 Met Leu Gln Asp Cys Pro Lys Ala Arg Arg Glu Val Glu Leu His Trp  
 85 90 95  
 Arg Ala Ser Gln Cys Pro His Ile Val Arg Ile Val Asp Val Tyr Glu  
 100 105 110  
 Asn Leu Tyr Ala Gly Arg Lys Cys Leu Leu Ile Val Met Glu Cys Leu  
 115 120 125

Asp Gly Gly Glu Leu Phe Ser Arg Ile Gln Asp Arg Gly Asp Gln Ala  
 130 135 140  
 Phe Thr Glu Arg Glu Ala Ser Glu Ile Met Lys Ser Ile Gly Glu Ala  
 145 150 155 160  
 Ile Gln Tyr Leu His Ser Ile Asn Ile Ala His Arg Asp Val Lys Pro  
 165 170 175  
 Glu Asn Leu Leu Tyr Thr Ser Lys Arg Pro Asn Ala Ile Leu Lys Leu  
 180 185 190  
 Thr Asp Phe Gly Phe Ala Lys Glu Thr Thr Ser His Asn Ser Leu Thr  
 195 200 205  
 Thr Pro Cys Tyr Thr Pro Tyr Tyr Val Ala Pro Glu Val Leu Gly Pro  
 210 215 220  
 Glu Lys Tyr Asp Lys Ser Cys Asp Met Trp Ser Leu Gly Val Ile Met  
 225 230 235 240  
 Tyr Ile Leu Leu Cys Gly Tyr Pro Pro Phe Tyr Ser Asn His Gly Leu  
 245 250 255  
 Ala Ile Ser Pro Gly Met Lys Thr Arg Ile Arg Met Gly Gln Tyr Glu  
 260 265 270  
 Phe Pro Asn Pro Glu Trp Ser Glu Val Ser Glu Glu Val Lys Met Leu  
 275 280 285  
 Ile Arg Asn Leu Leu Lys Thr Glu Pro Thr Gln Arg Met Thr Ile Thr  
 290 295 300  
 Glu Phe Met Asn His Pro Trp Ile Met Gln Ser Thr Lys Val Pro Gln  
 305 310 315 320  
 Thr Pro Leu His Thr Ser Arg Val Leu Lys Glu Asp Lys Glu Arg Trp  
 325 330 335  
 Glu Asp Val Lys Gly Cys Leu His Asp Lys Asn Ser Asp Gln Ala Thr  
 340 345 350  
 Trp Leu Thr Arg Leu  
 355

&lt;210&gt; 115

&lt;211&gt; 366

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 115

Met Ala Glu Lys Phe Glu Ser Leu Met Asn Ile His Gly Phe Asp Leu  
 1 5 10 15

Gly Ser Arg Tyr Met Asp Leu Lys Pro Leu Gly Cys Gly Gly Asn Gly  
 20 25 30

Leu	Val	Phe	Ser	Ala	Val	Asp	Asn	Asp	Cys	Asp	Lys	Arg	Val	Ala	Ile	
		35					40				45					
Lys	Lys	Ile	Val	Leu	Thr	Asp	Pro	Gln	Ser	Val	Lys	His	Ala	Leu	Arg	
		50					55				60					
Glu	Ile	Lys	Ile	Ile	Arg	Arg	Leu	Asp	His	Asp	Asn	Ile	Val	Lys	Val	
		65					70				75				80	
Phe	Glu	Ile	Leu	Gly	Pro	Ser	Gly	Ser	Gln	Leu	Thr	Asp	Asp	Val	Gly	
		85							90						95	
Ser	Leu	Thr	Glu	Leu	Asn	Ser	Val	Tyr	Ile	Val	Gln	Glu	Tyr	Met	Glu	
		100							105						110	
Thr	Asp	Leu	Ala	Asn	Val	Leu	Glu	Gln	Gly	Pro	Leu	Leu	Glu	Glu	His	
		115							120						125	
Ala	Arg	Leu	Phe	Met	Tyr	Gln	Leu	Leu	Arg	Gly	Leu	Lys	Tyr	Ile	His	
		130											140			
Ser	Ala	Asn	Val	Leu	His	Arg	Asp	Leu	Lys	Pro	Ala	Asn	Leu	Phe	Ile	
		145					150				155				160	
Asn	Thr	Glu	Asp	Leu	Val	Leu	Lys	Ile	Gly	Asp	Phe	Gly	Leu	Ala	Arg	
		165							170						175	
Ile	Met	Asp	Pro	His	Tyr	Ser	His	Lys	Gly	His	Leu	Ser	Glu	Gly	Leu	
		180							185						190	
Val	Thr	Lys	Trp	Tyr	Arg	Ser	Pro	Arg	Leu	Leu	Leu	Ser	Pro	Asn	Asn	
		195					200						205			
Tyr	Thr	Lys	Ala	Ile	Asp	Met	Trp	Ala	Ala	Gly	Cys	Ile	Phe	Ala	Glu	
		210					215				220					
Met	Leu	Thr	Gly	Lys	Thr	Leu	Phe	Ala	Gly	Ala	His	Glu	Leu	Glu	Gln	
		225							235						240	
Met	Gln	Leu	Ile	Leu	Glu	Ser	Ile	Pro	Val	Val	His	Glu	Glu	Asp	Arg	
		245							250						255	
Gln	Glu	Leu	Leu	Ser	Val	Ile	Pro	Val	Tyr	Ile	Arg	Asn	Asp	Met	Thr	
		260							265						270	
Glu	Pro	His	Lys	Pro	Leu	Thr	Gln	Leu	Leu	Pro	Gly	Ile	Ser	Arg	Glu	
		275					280						285			
Ala	Leu	Asp	Phe	Leu	Glu	Gln	Ile	Leu	Thr	Phe	Ser	Pro	Met	Asp	Arg	
		290					295				300					
Leu	Thr	Ala	Glu	Glu	Ala	Leu	Ser	His	Pro	Tyr	Met	Ser	Ile	Tyr	Ser	
		305					310				315				320	
Phe	Pro	Met	Asp	Glu	Pro	Ile	Ser	Ser	His	Pro	Phe	His	Ile	Glu	Asp	
		325							330						335	

Glu Val Asp Asp Ile Leu Leu Met Asp Glu Thr His Ser His Ile Tyr  
                   340                  345                  350

Asn Trp Glu Arg Tyr His Asp Cys Gln Phe Ser Glu His Asp  
           355                  360                  365

<210> 116

<211> 424

<212> PRT

<213> Homo sapiens

<400> 116

Met Val Ser Ser Gln Lys Leu Glu Lys Pro Ile Glu Met Gly Ser Ser  
   1                  5                  10                  15

Glu Pro Leu Pro Ile Ala Asp Gly Asp Arg Arg Arg Lys Lys Lys Arg  
                   20                  25                  30

Arg Gly Arg Ala Thr Asp Ser Leu Pro Gly Lys Phe Glu Asp Met Tyr  
           35                  40                  45

Lys Leu Thr Ser Glu Leu Leu Gly Glu Gly Ala Tyr Ala Lys Val Gln  
   50                  55                  60

Gly Ala Val Ser Leu Gln Asn Gly Lys Glu Tyr Ala Val Lys Ile Ile  
   65                  70                  75                  80

Glu Lys Gln Ala Gly His Ser Arg Ser Arg Val Phe Arg Glu Val Glu  
                   85                  90                  95

Thr Leu Tyr Gln Cys Gln Gly Asn Lys Asn Ile Leu Glu Leu Ile Glu  
                   100                  105                  110

Phe Phe Glu Asp Asp Thr Arg Phe Tyr Leu Val Phe Glu Lys Leu Gln  
           115                  120                  125

Gly Gly Ser Ile Leu Ala His Ile Gln Lys Gln Lys His Phe Asn Glu  
   130                  135                  140

Arg Glu Ala Ser Arg Val Val Arg Asp Val Ala Ala Ala Leu Asp Phe  
   145                  150                  155                  160

Leu His Thr Lys Asp Lys Val Ser Leu Cys His Leu Gly Trp Ser Ala  
                   165                  170                  175

Met Ala Pro Ser Gly Leu Thr Ala Ala Pro Thr Ser Leu Gly Ser Ser  
                   180                  185                  190

Asp Pro Pro Thr Ser Ala Ser Gln Val Ala Gly Thr Thr Gly Ile Ala  
           195                  200                  205

His Arg Asp Leu Lys Pro Glu Asn Ile Leu Cys Glu Ser Pro Glu Lys  
   210                  215                  220

Val Ser Pro Val Lys Ile Cys Asp Phe Asp Leu Gly Ser Gly Met Lys  
   225                  230                  235                  240



145

Leu	Asn	Asn	Ser	Cys	Thr	Pro	Ile	Thr	Thr	Pro	Glu	Leu	Thr	Thr	Pro
				245					250					255	
Cys	Gly	Ser	Ala	Glu	Tyr	Met	Ala	Pro	Glu	Val	Val	Glu	Val	Phe	Thr
			260					265					270		
Asp	Gln	Ala	Thr	Phe	Tyr	Asp	Lys	Arg	Cys	Asp	Leu	Trp	Ser	Leu	Gly
		275					280					285			
Val	Val	Leu	Tyr	Ile	Met	Leu	Ser	Gly	Tyr	Pro	Pro	Phe	Val	Gly	His
	290					295					300				
Cys	Gly	Ala	Asp	Cys	Gly	Trp	Asp	Arg	Gly	Glu	Val	Cys	Arg	Val	Cys
305					310					315					320
Gln	Asn	Lys	Leu	Phe	Glu	Ser	Ile	Gln	Glu	Gly	Lys	Tyr	Glu	Phe	Pro
				325					330					335	
Asp	Lys	Asp	Trp	Ala	His	Ile	Ser	Ser	Glu	Ala	Lys	Asp	Leu	Ile	Ser
			340					345					350		
Lys	Leu	Leu	Val	Arg	Asp	Ala	Lys	Gln	Arg	Leu	Ser	Ala	Ala	Gln	Val
	355						360					365			
Leu	Gln	His	Pro	Trp	Val	Gln	Gly	Gln	Ala	Pro	Glu	Lys	Gly	Leu	Pro
	370					375					380				
Thr	Pro	Gln	Val	Leu	Gln	Arg	Asn	Ser	Ser	Thr	Met	Asp	Leu	Thr	Leu
385					390					395					400
Phe	Ala	Ala	Glu	Ala	Ile	Ala	Leu	Asn	Arg	Gln	Leu	Ser	Gln	His	Glu
				405					410					415	
Glu	Asn	Glu	Leu	Ala	Glu	Glu	Pro								
			420												

<210> 117

<211> 336

<212> PRT

<213> Homo sapiens

<400> 117

Val	Asn	Asp	Met	Gly	Ser	Ala	Ser	Ser	Ser	Ala	Ser	Leu	Arg	Val	Leu
1				5					10					15	
Gly	Pro	Gly	Met	Asp	Gly	Ile	Met	Val	Thr	Trp	Lys	Asp	Asn	Phe	Asp
			20					25					30		
Ser	Phe	Tyr	Ser	Glu	Val	Ala	Glu	Leu	Gly	Arg	Gly	Arg	Phe	Ser	Val
		35					40					45			
Val	Lys	Lys	Cys	Asp	Gln	Lys	Gly	Thr	Lys	Arg	Ala	Val	Ala	Thr	Lys
	50					55					60				
Phe	Val	Asn	Lys	Lys	Leu	Met	Lys	Arg	Asp	Gln	Val	Thr	His	Glu	Leu
65					70					75					80

Gly	Ile	Leu	Gln	Ser 85	Leu	Gln	His	Pro	Leu 90	Leu	Val	Gly	Leu	Leu	Asp
Thr	Phe	Glu	Thr	Pro 100	Thr	Ser	Tyr	Ile 105	Leu	Val	Leu	Glu	Met 110	Ala	Asp
Gln	Gly	Arg	Leu	Leu	Asp	Cys	Val 120	Val	Arg	Trp	Gly	Ser 125	Leu	Thr	Glu
Gly	Lys	Ile	Arg	Ala	His	Leu 135	Gly	Glu	Val	Leu	Glu 140	Ala	Val	Arg	Tyr
Leu 145	His	Asn	Cys	Arg	Ile 150	Ala	His	Leu	Asp	Leu 155	Lys	Pro	Glu	Asn	Ile 160
Leu	Val	Asp	Glu	Ser 165	Leu	Ala	Lys	Pro	Thr 170	Ile	Lys	Leu	Ala	Asp 175	Phe
Gly	Asp	Ala	Val 180	Gln	Leu	Asn	Thr	Thr 185	Tyr	Tyr	Ile	His	Gln 190	Leu	Leu
Gly	Asn	Pro 195	Glu	Phe	Ala	Ala	Pro 200	Glu	Ile	Ile	Leu	Gly 205	Asn	Pro	Val
Ser	Leu 210	Thr	Ser	Asp	Thr	Trp 215	Ser	Val	Gly	Val	Leu 220	Thr	Tyr	Val	Leu
Leu 225	Ser	Gly	Val	Ser 230	Pro	Phe	Leu	Asp	Asp	Ser 235	Val	Glu	Glu	Thr	Cys 240
Leu	Asn	Ile	Cys	Arg 245	Leu	Asp	Phe	Ser	Phe 250	Pro	Asp	Asp	Tyr	Phe 255	Lys
Gly	Val	Ser	Gln 260	Lys	Ala	Lys	Glu	Phe 265	Val	Cys	Phe	Leu	Leu 270	Gln	Glu
Asp	Pro	Ala 275	Lys	Arg	Pro	Ser	Ala 280	Ala	Leu	Ala	Leu	Gln 285	Glu	Gln	Trp
Leu	Gln 290	Ala	Gly	Asn	Gly 295	Arg	Ser	Thr	Gly	Val	Leu 300	Asp	Thr	Ser	Arg
Leu 305	Thr	Ser	Phe	Ile 310	Glu	Arg	Arg	Lys	His	Gln 315	Asn	Asp	Val	Arg	Pro 320
Ile	Arg	Ser	Ile	Lys 325	Asn	Phe	Leu	Gln	Ser 330	Arg	Leu	Leu	Pro	Arg 335	Val

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<210> 118
<211> 314
<212> PRT
<213> Homo sapiens
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&lt;400&gt; 118

His	Ser	Leu	Ser	Thr	Ser	Ser	Gly	Ser	Ser	Ile	Phe	Thr	Pro	Glu	Tyr
1				5					10					15	
Asp	Asp	Ser	Arg	Ile	Arg	Arg	Arg	Gly	Ser	Asp	Ile	Asp	Asn	Pro	Thr
			20					25					30		
Leu	Thr	Val	Met	Asp	Ile	Ser	Pro	Pro	Ser	Arg	Ser	Pro	Arg	Ala	Pro
		35					40					45			
Thr	Asn	Trp	Arg	Leu	Gly	Lys	Leu	Leu	Gly	Gln	Gly	Ala	Phe	Gly	Arg
	50					55					60				
Val	Tyr	Leu	Cys	Tyr	Asp	Val	Asp	Thr	Gly	Arg	Glu	Leu	Ala	Val	Lys
65					70					75					80
Gln	Val	Gln	Phe	Asp	Pro	Asp	Ser	Pro	Glu	Thr	Ser	Lys	Glu	Val	Asn
				85					90					95	
Ala	Leu	Glu	Cys	Glu	Ile	Gln	Leu	Leu	Lys	Asn	Phe	Leu	His	Glu	Arg
			100					105					110		
Ile	Val	Gln	Tyr	Tyr	Gly	Cys	Leu	Arg	Asp	Pro	Gln	Glu	Lys	Thr	Leu
		115					120					125			
Ser	Ile	Phe	Met	Glu	Tyr	Met	Pro	Gly	Gly	Ser	Ile	Lys	Asp	Gln	Leu
	130					135					140				
Lys	Ala	Tyr	Gly	Ala	Leu	Thr	Glu	Asn	Gly	Thr	Arg	Lys	Tyr	Thr	Arg
145					150					155					160
Gln	Ile	Leu	Glu	Gly	Val	His	Tyr	Leu	His	Ser	Asn	Met	Ile	Leu	His
				165					170					175	
Arg	Asp	Ile	Lys	Gly	Ala	Asn	Ile	Leu	Arg	Asp	Ser	Thr	Gly	Asn	Val
			180					185					190		
Lys	Leu	Gly	Asp	Phe	Gly	Ala	Ser	Lys	Arg	Leu	Gln	Thr	Ile	Cys	Leu
		195					200					205			
Ser	Gly	Thr	Gly	Met	Lys	Ser	Val	Thr	Gly	Thr	Pro	Tyr	Trp	Met	Ser
	210				215						220				
Pro	Glu	Val	Ile	Ser	Gly	Gln	Gly	Tyr	Gly	Arg	Lys	Ala	Asp	Ile	Trp
225					230					235					240
Ser	Val	Ala	Cys	Thr	Val	Val	Glu	Met	Leu	Thr	Glu	Lys	Pro	Pro	Trp
				245					250					255	
Ala	Glu	Phe	Glu	Ala	Met	Ala	Ala	Ile	Phe	Lys	Ile	Ala	Thr	Gln	Pro
			260					265					270		
Thr	Asn	Pro	Lys	Leu	Pro	Pro	His	Val	Ser	Asp	Tyr	Thr	Arg	Asp	Phe
	275						280					285			
Leu	Lys	Arg	Ile	Phe	Val	Glu	Ala	Lys	Leu	Arg	Pro	Ser	Ala	Asp	Glu
	290					295					300				

Leu Leu Arg His Met Phe Val His Tyr His  
305 310

<210> 119

<211> 321

<212> PRT

<213> Homo sapiens

<400> 119

Val Asn Glu Arg Asp Thr Val Asn His Thr Thr Val Asp Gly Tyr Thr  
1 5 10 15

Glu Pro His Ile Gln Pro Thr Lys Ser Ser Ser Arg Gln Asn Ile Pro  
20 25 30

Arg Cys Arg Asn Ser Ile Thr Ser Ala Thr Asp Glu Gln Pro His Ile  
35 40 45

Gly Asn Tyr Arg Leu Gln Lys Thr Ile Gly Lys Gly Asn Phe Ala Lys  
50 55 60

Val Lys Leu Ala Arg His Val Leu Thr Gly Arg Glu Val Ala Val Lys  
65 70 75 80

Ile Ile Asp Lys Thr Gln Leu Asn Pro Thr Ser Leu Gln Lys Leu Phe  
85 90 95

Arg Glu Val Arg Ile Met Lys Ile Leu Asn His Pro Asn Ile Val Lys  
100 105 110

Leu Phe Glu Val Ile Glu Thr Glu Lys Thr Leu Tyr Leu Val Met Glu  
115 120 125

Tyr Ala Ser Gly Gly Glu Val Phe Asp Tyr Leu Val Ala His Gly Arg  
130 135 140

Met Lys Glu Lys Glu Ala Arg Ala Lys Phe Arg Gln Ile Val Ser Ala  
145 150 155 160

Val Gln Tyr Cys His Gln Lys Tyr Ile Val His Arg Asp Leu Lys Ala  
165 170 175

Glu Asn Leu Leu Leu Asp Gly Asp Met Asn Ile Lys Ile Ala Asp Phe  
180 185 190

Gly Phe Ser Asn Glu Phe Thr Val Gly Asn Lys Leu Asp Thr Phe Cys  
195 200 205

Gly Ser Pro Pro Tyr Ala Ala Pro Glu Leu Phe Gln Gly Lys Lys Tyr  
210 215 220

Asp Gly Pro Glu Val Asp Val Trp Ser Leu Gly Val Ile Leu Tyr Thr  
225 230 235 240

Leu Val Ser Gly Ser Leu Pro Phe Asp Gly Gln Asn Leu Lys Glu Leu  
245 250 255

Arg Glu Arg Val Leu Arg Gly Lys Tyr Arg Ile Pro Phe Tyr Met Ser  
260 265 270

Thr Asp Cys Glu Asn Leu Leu Lys Lys Leu Leu Val Leu Asn Pro Ile  
275 280 285

Lys Arg Gly Ser Leu Glu Gln Ile Met Lys Asp Arg Trp Met Asn Val  
290 295 300

Gly His Glu Glu Glu Glu Leu Lys Pro Tyr Thr Glu Pro Asp Pro Asp  
305 310 315 320

Phe

<210> 120

<211> 320

<212> PRT

<213> Homo sapiens

<400> 120

Met Ala Thr Ala Glu Lys Gln Lys His Asp Gly Arg Val Lys Ile Gly  
1 5 10 15

His Tyr Ile Leu Gly Asp Thr Leu Gly Val Gly Thr Phe Gly Lys Val  
20 25 30

Lys Val Gly Lys His Glu Leu Thr Gly His Lys Val Ala Val Lys Ile  
35 40 45

Leu Asn Arg Gln Lys Ile Arg Ser Leu Asp Val Val Gly Lys Ile Arg  
50 55 60

Arg Glu Ile Gln Asn Leu Lys Leu Phe Arg His Pro His Ile Ile Lys  
65 70 75 80

Leu Tyr Gln Val Ile Ser Thr Pro Ser Asp Ile Phe Met Val Met Glu  
85 90 95

Tyr Val Ser Gly Gly Glu Leu Phe Asp Tyr Ile Cys Lys Asn Gly Arg  
100 105 110

Leu Asp Glu Lys Glu Ser Arg Arg Leu Phe Gln Gln Ile Leu Ser Gly  
115 120 125

Val Asp Tyr Cys His Arg His Met Val Val His Arg Asp Leu Lys Pro  
130 135 140

Glu Asn Val Leu Leu Asp Ala His Met Asn Ala Lys Ile Ala Asp Phe  
145 150 155 160

Gly Leu Ser Asn Met Met Ser Asp Gly Glu Phe Leu Arg Thr Ser Cys  
165 170 175

Gly Ser Pro Asn Tyr Ala Ala Pro Glu Val Ile Ser Gly Arg Leu Tyr  
180 185 190

150

Ala Gly Pro Glu Val Asp Ile Trp Ser Ser Gly Val Ile Leu Tyr Ala  
195 200 205

Leu Leu Cys Gly Thr Leu Pro Phe Asp Asp Asp His Val Pro Thr Leu  
210 215 220

Phe Lys Lys Ile Cys Asp Gly Ile Phe Tyr Thr Pro Gln Tyr Leu Asn  
225 230 235 240

Pro Ser Val Ile Ser Leu Leu Lys His Met Leu Gln Val Asp Pro Met  
245 250 255

Lys Arg Ala Ser Ile Lys Asp Ile Arg Glu His Glu Trp Phe Lys Gln  
260 265 270

Asp Leu Pro Lys Tyr Leu Phe Pro Glu Asp Pro Ser Tyr Ser Ser Thr  
275 280 285

Met Ile Asp Asp Glu Ala Leu Lys Glu Val Cys Glu Lys Phe Glu Cys  
290 295 300

Ser Glu Glu Glu Val Leu Ser Cys Leu Tyr Asn Arg Asn His Gln Asp  
305 310 315 320

<210> 121  
<211> 315  
<212> PRT  
<213> Homo sapiens

<400> 121  
Met Ala Val Pro Phe Val Glu Asp Trp Asp Leu Val Gln Thr Leu Gly  
1 5 10 15

Glu Gly Ala Tyr Gly Glu Val Gln Leu Ala Val Asn Arg Val Thr Glu  
20 25 30

Glu Ala Val Ala Val Lys Ile Val Asp Met Lys Arg Ala Val Asp Cys  
35 40 45

Pro Glu Asn Ile Lys Lys Glu Ile Cys Ile Asn Lys Met Leu Asn His  
50 55 60

Glu Asn Val Val Lys Phe Tyr Gly His Arg Arg Glu Gly Asn Ile Gln  
65 70 75 80

Tyr Leu Phe Leu Glu Tyr Cys Ser Gly Gly Glu Leu Phe Asp Arg Ile  
85 90 95

Glu Pro Asp Ile Gly Met Pro Glu Pro Asp Ala Gln Arg Phe Phe His  
100 105 110

Gln Leu Met Ala Gly Val Val Tyr Leu His Gly Ile Gly Ile Thr His  
115 120 125

151

Arg Asp Ile Lys Pro Glu Asn Leu Leu Leu Asp Glu Arg Asp Asn Leu  
130 135 140

Lys Ile Ser Asp Phe Gly Leu Ala Thr Val Phe Arg Tyr Asn Asn Arg  
145 150 155 160

Glu Arg Leu Leu Asn Lys Met Cys Gly Thr Leu Pro Tyr Val Ala Pro  
165 170 175

Glu Leu Leu Lys Arg Arg Glu Phe His Ala Glu Pro Val Asp Val Trp  
180 185 190

Ser Cys Gly Ile Val Leu Thr Ala Met Leu Ala Gly Glu Leu Pro Trp  
195 200 205

Asp Gln Pro Ser Asp Ser Cys Gln Glu Tyr Ser Asp Trp Lys Glu Lys  
210 215 220

Lys Thr Tyr Leu Asn Pro Trp Lys Lys Ile Asp Ser Ala Pro Leu Ala  
225 230 235 240

Leu Leu His Lys Ile Leu Val Glu Asn Pro Ser Ala Arg Ile Thr Ile  
245 250 255

Pro Asp Ile Lys Lys Asp Arg Trp Tyr Asn Lys Pro Leu Lys Lys Gly  
260 265 270

Ala Lys Arg Pro Arg Val Thr Ser Gly Gly Val Ser Glu Ser Pro Ser  
275 280 285

Gly Phe Ser Lys His Ile Gln Ser Asn Leu Asp Phe Ser Pro Val Asn  
290 295 300

Ser Ala Ser Ser Glu Glu Asn Val Lys Tyr Ser  
305 310 315

<210> 122

<211> 339

<212> PRT

<213> Homo sapiens

<400> 122

Leu Asp Met Asn Gly Arg Cys Ile Cys Pro Ser Leu Pro Tyr Ser Pro  
1 5 10 15

Val Ser Ser Pro Gln Ser Ser Pro Arg Leu Pro Arg Arg Pro Thr Val  
20 25 30

Glu Ser His His Val Ser Ile Thr Gly Met Gln Asp Cys Val Gln Leu  
35 40 45

Asn Gln Tyr Thr Leu Lys Asp Glu Ile Gly Lys Gly Ser Tyr Gly Val  
50 55 60

Val Lys Leu Ala Tyr Asn Glu Asn Asp Asn Thr Tyr Tyr Ala Met Lys  
65 70 75 80

Val	Leu	Ser	Lys	Lys	Lys	Leu	Ile	Arg	Gln	Ala	Gly	Phe	Pro	Arg	Arg	
				85							90				95	
Pro	Pro	Pro	Arg	Gly	Thr	Arg	Pro	Ala	Pro	Gly	Gly	Cys	Ile	Gln	Pro	
			100						105			110				
Arg	Gly	Pro	Ile	Glu	Gln	Val	Tyr	Gln	Glu	Ile	Ala	Ile	Leu	Lys	Lys	
		115				120						125				
Leu	Asp	His	Pro	Asn	Val	Val	Lys	Leu	Val	Glu	Val	Leu	Asp	Asp	Pro	
		130				135				140						
Asn	Glu	Asp	His	Leu	Tyr	Met	Val	Phe	Glu	Leu	Val	Asn	Gln	Gly	Pro	
145				150						155				160		
Val	Met	Glu	Val	Pro	Thr	Leu	Lys	Pro	Leu	Ser	Glu	Asp	Gln	Ala	Arg	
			165						170			175				
Phe	Tyr	Phe	Gln	Asp	Leu	Ile	Lys	Gly	Ile	Glu	Tyr	Leu	His	Tyr	Gln	
			180						185			190				
Lys	Ile	Ile	His	Arg	Asp	Ile	Lys	Pro	Ser	Asn	Leu	Leu	Val	Gly	Glu	
		195				200						205				
Asp	Gly	His	Ile	Lys	Ile	Ala	Asp	Phe	Gly	Val	Ser	Asn	Glu	Phe	Lys	
		210				215				220						
Gly	Ser	Asp	Ala	Leu	Leu	Ser	Asn	Thr	Val	Gly	Thr	Pro	Ala	Phe	Met	
225				230						235				240		
Ala	Pro	Glu	Ser	Leu	Ser	Glu	Thr	Arg	Lys	Ile	Phe	Ser	Gly	Lys	Ala	
			245						250			255				
Leu	Asp	Val	Trp	Ala	Met	Gly	Val	Thr	Leu	Tyr	Cys	Phe	Val	Phe	Gly	
			260						265			270				
Gln	Cys	Pro	Phe	Met	Asp	Glu	Arg	Ile	Met	Cys	Leu	His	Ser	Lys	Ile	
		275				280						285				
Lys	Ser	Gln	Ala	Leu	Glu	Phe	Pro	Asp	Gln	Pro	Asp	Ile	Ala	Glu	Asp	
		290				295				300						
Leu	Lys	Asp	Leu	Ile	Thr	Arg	Met	Leu	Asp	Lys	Asn	Pro	Glu	Ser	Arg	
305				310						315				320		
Ile	Val	Val	Pro	Glu	Ile	Lys	Ile	Leu	Val	Lys	Thr	Met	Ile	Arg	Lys	
			325						330			335				
Arg	Ser	Phe														

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<210> 123
<211> 359
<212> PRT
<213> Homo sapiens
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<400> 123

Met Glu Val Val Asp Pro Gln Gln Leu Gly Met Phe Thr Glu Gly Glu  
1 5 10 15

Leu Met Ser Val Gly Met Asp Thr Phe Ile His Arg Ile Asp Ser Thr  
20 25 30

Glu Val Ile Tyr Gln Pro Arg Arg Lys Arg Ala Lys Leu Ile Gly Lys  
35 40 45

Tyr Leu Met Gly Asp Leu Leu Gly Glu Gly Ser Tyr Gly Lys Val Lys  
50 55 60

Glu Val Leu Asp Ser Glu Thr Leu Cys Arg Arg Ala Val Lys Ile Leu  
65 70 75 80

Lys Lys Lys Lys Leu Arg Arg Ile Pro Asn Gly Glu Ala Asn Val Lys  
85 90 95

Lys Glu Ile Gln Leu Leu Arg Arg Leu Arg His Lys Asn Val Ile Gln  
100 105 110

Leu Val Asp Val Leu Tyr Asn Glu Glu Lys Gln Lys Met Tyr Met Val  
115 120 125

Met Glu Tyr Cys Val Cys Gly Met Gln Glu Met Leu Asp Ser Val Pro  
130 135 140

Glu Lys Arg Phe Pro Val Cys Gln Ala His Gly Tyr Phe Cys Gln Leu  
145 150 155 160

Ile Asp Gly Leu Glu Tyr Leu His Ser Gln Gly Ile Val His Lys Asp  
165 170 175

Ile Lys Pro Gly Asn Leu Leu Leu Thr Thr Gly Gly Thr Leu Lys Ile  
180 185 190

Ser Asp Leu Gly Val Ala Glu Ala Leu His Pro Phe Ala Ala Asp Asp  
195 200 205

Thr Cys Arg Thr Ser Gln Gly Ser Pro Ala Phe Gln Pro Pro Glu Ile  
210 215 220

Ala Asn Gly Leu Asp Thr Phe Ser Gly Phe Lys Val Asp Ile Trp Ser  
225 230 235 240

Ala Gly Val Thr Leu Tyr Asn Ile Thr Thr Gly Leu Tyr Pro Phe Glu  
245 250 255

Gly Asp Asn Ile Tyr Lys Leu Phe Glu Asn Ile Gly Lys Gly Ser Tyr  
260 265 270

Ala Ile Pro Gly Asp Cys Gly Pro Pro Leu Ser Asp Leu Leu Lys Gly  
275 280 285

Met Leu Glu Tyr Glu Pro Ala Lys Arg Phe Ser Ile Arg Gln Ile Arg  
290 295 300

Gln His Ser Trp Phe Arg Lys Lys His Pro Pro Ala Glu Ala Pro Val  
305 310 315 320

Pro Ile Pro Pro Ser Pro Asp Thr Lys Asp Arg Trp Arg Ser Met Thr  
325 330 335

Val Val Pro Tyr Leu Glu Asp Leu His Gly Ala Asp Glu Asp Glu Asp  
340 345 350

Leu Phe Asp Ile Glu Asp Asp  
355

<210> 124

<211> 353

<212> PRT

<213> Homo sapiens

<400> 124

Ala Ala Val Thr Ala Gly Lys Leu Ala Arg Ala Pro Ala Asp Pro Gly  
1 5 10 15

Lys Ala Gly Val Pro Gly Val Ala Ala Pro Gly Ala Pro Ala Ala Ala  
20 25 30

Pro Pro Ala Lys Glu Ile Pro Glu Val Leu Val Asp Pro Arg Ser Arg  
35 40 45

Arg Arg Tyr Val Arg Gly Arg Phe Leu Gly Lys Gly Gly Phe Ala Lys  
50 55 60

Cys Phe Glu Ile Ser Asp Ala Asp Thr Lys Glu Val Phe Ala Gly Lys  
65 70 75 80

Ile Val Pro Lys Ser Leu Leu Leu Lys Pro His Gln Arg Glu Lys Met  
85 90 95

Ser Met Glu Ile Ser Ile His Arg Ser Leu Ala His Gln His Val Val  
100 105 110

Gly Phe His Gly Phe Phe Glu Asp Asn Asp Phe Val Phe Val Val Leu  
115 120 125

Glu Leu Cys Arg Arg Arg Ser Leu Leu Glu Leu His Lys Arg Arg Lys  
130 135 140

Ala Leu Thr Glu Pro Glu Ala Arg Tyr Tyr Leu Arg Gln Ile Val Leu  
145 150 155 160

Gly Cys Gln Tyr Leu His Arg Asn Arg Val Ile His Arg Asp Leu Lys  
165 170 175

Leu Gly Asn Leu Phe Leu Asn Glu Asp Leu Glu Val Lys Ile Gly Asp  
180 185 190

Phe Gly Leu Ala Thr Lys Val Glu Tyr Asp Gly Glu Arg Lys Lys Thr  
195 200 205

Leu 210	Cys	Gly	Thr	Pro	Asn	Tyr 215	Ile	Ala	Pro	Glu	Val 220	Leu	Ser	Lys	Lys
Gly 225	His	Ser	Phe	Glu	Val 230	Asp	Val	Trp	Ser	Ile 235	Gly	Cys	Ile	Met	Tyr 240
Thr	Leu	Leu	Val	Gly 245	Lys	Pro	Pro	Phe	Glu 250	Thr	Ser	Cys	Leu	Lys 255	Glu
Thr	Tyr	Leu	Arg 260	Ile	Lys	Lys	Asn	Glu 265	Tyr	Ser	Ile	Pro	Lys 270	His	Ile
Asn	Pro	Val 275	Ala	Ala	Ser	Leu	Ile 280	Gln	Lys	Met	Leu	Gln 285	Thr	Asp	Pro
Thr 290	Ala	Arg	Pro	Thr	Ile	Asn 295	Glu	Leu	Leu	Asn	Asp 300	Glu	Phe	Phe	Thr
Ser 305	Gly	Tyr	Ile	Pro	Ala 310	Arg	Leu	Pro	Ile	Thr 315	Cys	Leu	Thr	Ile	Pro 320
Pro	Arg	Phe	Ser	Ile 325	Ala	Pro	Ser	Ser	Leu 330	Asp	Pro	Ser	Asn 335	Arg	Lys
Pro	Leu	Thr	Val 340	Leu	Asn	Lys	Gly	Leu 345	Glu	Asn	Pro	Leu	Pro 350	Glu	Arg

Pro

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<210> 125
<211> 322
<212> PRT
<213> Homo sapiens
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<400> 125
Thr Ser Val Pro His Pro Val Ser Arg Pro Leu Asn Asn Thr Gln Lys
  1                      5                      10                      15

Ser Lys Gln Pro Leu Pro Ser Ala Pro Glu Asn Asn Pro Glu Glu Glu
                20                      25                      30

Leu Ala Ser Lys Gln Lys Asn Glu Glu Ser Lys Lys Arg Gln Trp Ala
        35                      40                      45

Leu Glu Asp Phe Glu Ile Gly Arg Pro Leu Gly Lys Gly Lys Phe Gly
  50                      55                      60

Asn Val Tyr Leu Ala Arg Glu Lys Gln Ser Lys Phe Ile Leu Ala Leu
  65                      70                      75                      80

Lys Val Leu Phe Lys Ala Gln Leu Glu Lys Ala Gly Val Glu His Gln
                85                      90                      95

Leu Arg Arg Glu Val Glu Ile Gln Ser His Leu Arg His Pro Asn Ile
        100                      105                      110

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Leu Arg Leu Tyr Gly Tyr Phe His Asp Ala Thr Arg Val Tyr Leu Ile  
 115 120 125

Leu Glu Tyr Ala Pro Leu Gly Thr Val Tyr Arg Glu Leu Gln Lys Leu  
 130 135 140

Ser Lys Phe Asp Glu Gln Arg Thr Ala Thr Tyr Ile Thr Glu Leu Ala  
 145 150 155 160

Asn Ala Leu Ser Tyr Cys His Ser Lys Arg Val Ile His Arg Asp Ile  
 165 170 175

Lys Pro Glu Asn Leu Leu Leu Gly Ser Ala Gly Glu Leu Lys Ile Ala  
 180 185 190

Asp Phe Gly Trp Ser Val His Ala Pro Ser Ser Arg Arg Thr Thr Leu  
 195 200 205

Cys Gly Thr Leu Asp Tyr Leu Pro Pro Glu Met Ile Glu Gly Arg Met  
 210 215 220

His Asp Glu Lys Val Asp Leu Trp Ser Leu Gly Val Leu Cys Tyr Glu  
 225 230 235 240

Phe Leu Val Gly Lys Pro Pro Phe Glu Ala Asn Thr Tyr Gln Glu Thr  
 245 250 255

Tyr Lys Arg Ile Ser Arg Val Glu Phe Thr Phe Pro Asp Phe Val Thr  
 260 265 270

Glu Gly Ala Arg Asp Leu Ile Ser Arg Leu Leu Lys His Asn Pro Ser  
 275 280 285

Gln Arg Pro Met Leu Arg Glu Val Leu Glu His Pro Trp Ile Thr Ala  
 290 295 300

Asn Ser Ser Lys Pro Ser Asn Cys Gln Asn Lys Glu Ser Ala Ser Lys  
 305 310 315 320

Gln Ser

<210> 126

<211> 380

<212> PRT

<213> Homo sapiens

<400> 126

Gln Ser Ser Ala Lys Arg His Leu Ala Glu Gln Phe Ala Val Gly Glu  
 1 5 10 15

Ile Ile Thr Asp Met Ala Lys Lys Glu Trp Lys Val Gly Leu Pro Ile  
 20 25 30

Gly Gln Gly Gly Phe Gly Cys Ile Tyr Leu Ala Asp Met Asn Ser Ser  
 35 40 45

Glu 50	Ser	Val	Gly	Ser	Asp	Ala 55	Pro	Cys	Val	Val	Lys 60	Val	Glu	Pro	Ser
Asp 65	Asn	Gly	Pro	Leu	Phe 70	Thr	Glu	Leu	Lys	Phe 75	Tyr	Gln	Arg	Ala	Ala 80
Lys	Pro	Glu	Gln	Ile 85	Gln	Lys	Trp	Ile	Arg 90	Thr	Arg	Lys	Leu	Lys 95	Tyr
Leu	Gly	Val	Pro 100	Lys	Tyr	Trp	Gly	Ser 105	Gly	Leu	His	Asp 110	Lys	Asn	Gly
Lys	Ser	Tyr 115	Arg	Phe	Met	Ile	Met 120	Asp	Arg	Phe	Gly	Ser 125	Asp	Leu	Gln
Lys 130	Ile	Tyr	Glu	Ala	Asn 135	Ala	Lys	Arg	Phe	Ser	Arg 140	Lys	Thr	Val	Leu
Gln 145	Leu	Ser	Leu	Arg 150	Ile	Leu	Asp	Ile	Leu	Glu 155	Tyr	Ile	His	Glu	His 160
Glu	Tyr	Val	His 165	Gly	Asp	Ile	Lys	Ala	Ser 170	Asn	Leu	Leu	Leu	Asn 175	Tyr
Lys	Asn	Pro	Asp 180	Gln	Val	Tyr	Leu	Val 185	Asp	Tyr	Gly	Leu	Ala 190	Tyr	Arg
Tyr	Cys	Pro 195	Glu	Gly	Val	His	Lys 200	Glu	Tyr	Lys	Glu 205	Asp	Pro	Lys	Arg
Cys 210	His	Asp	Gly	Thr	Ile	Glu 215	Phe	Thr	Ser	Ile	Asp 220	Ala	His	Asn	Gly
Val 225	Ala	Pro	Ser	Arg 230	Arg	Gly	Asp	Leu	Glu	Ile 235	Leu	Gly	Tyr	Cys	Met 240
Ile	Gln	Trp	Leu	Thr 245	Gly	His	Leu	Pro	Trp 250	Glu	Asp	Asn	Leu	Lys 255	Asp
Pro	Lys	Tyr	Val 260	Arg	Asp	Ser	Lys	Ile 265	Arg	Tyr	Arg	Glu	Asn 270	Ile	Ala
Ser	Leu	Met 275	Asp	Lys	Cys	Phe	Pro 280	Glu	Lys	Asn	Lys	Pro 285	Gly	Glu	Ile
Ala	Lys 290	Tyr	Met	Glu	Thr	Val 295	Lys	Leu	Leu	Asp	Tyr 300	Thr	Glu	Lys	Pro
Leu 305	Tyr	Glu	Asn	Leu	Arg 310	Asp	Ile	Leu	Leu	Gln 315	Gly	Leu	Lys	Ala	Ile 320
Gly	Ser	Lys	Asp 325	Asp	Gly	Lys	Leu	Asp	Leu 330	Ser	Val	Val	Glu	Asn 335	Gly
Gly	Leu	Lys 340	Ala	Lys	Thr	Ile	Thr	Lys 345	Lys	Arg	Lys	Lys	Glu 350	Ile	Glu

Glu Ser Lys Glu Pro Gly Val Glu Asp Thr Glu Trp Ser Asn Thr Gln  
 355 360 365

Thr Glu Glu Ala Ile Gln Thr Arg Ser Arg Thr Arg  
 370 375 380

<210> 127

<211> 328

<212> PRT

<213> Homo sapiens

<400> 127

Met Glu Pro Gly Arg Gly Gly Thr Glu Thr Val Gly Lys Phe Glu Phe  
 1 5 10 15

Ser Arg Lys Asp Leu Ile Gly His Gly Ala Phe Ala Val Val Phe Lys  
 20 25 30

Gly Arg His Arg Glu Lys His Asp Leu Glu Val Ala Val Lys Cys Ile  
 35 40 45

Asn Lys Lys Asn Leu Ala Lys Ser Gln Thr Leu Leu Gly Lys Glu Ile  
 50 55 60

Lys Ile Leu Lys Glu Leu Lys His Glu Asn Ile Val Ala Leu Tyr Asp  
 65 70 75 80

Phe Gln Glu Met Ala Asn Ser Val Tyr Leu Val Met Glu Tyr Cys Asn  
 85 90 95

Gly Gly Asp Leu Ala Asp Tyr Leu His Ala Met Arg Thr Leu Ser Glu  
 100 105 110

Asp Thr Ile Arg Leu Phe Leu Gln Gln Ile Ala Gly Ala Met Arg Leu  
 115 120 125

Leu His Ser Lys Gly Ile Ile His Arg Asp Leu Lys Pro Gln Asn Ile  
 130 135 140

Leu Leu Ser Asn Pro Ala Gly Arg Arg Ala Asn Pro Asn Ser Ile Arg  
 145 150 155 160

Val Lys Ile Ala Asp Phe Gly Phe Ala Arg Tyr Leu Gln Ser Asn Met  
 165 170 175

Met Ala Ala Thr Leu Cys Gly Ser Pro Met Tyr Met Ala Pro Glu Val  
 180 185 190

Ile Met Ser Gln His Tyr Asp Gly Lys Ala Asp Leu Trp Ser Ile Gly  
 195 200 205

Thr Ile Val Tyr Gln Cys Leu Thr Gly Lys Ala Pro Phe Gln Ala Ser  
 210 215 220

Ser Pro Gln Asp Leu Arg Leu Phe Tyr Glu Lys Asn Lys Thr Leu Val  
 225 230 235 240

159

Pro Thr Ile Pro Arg Glu Thr Ser Ala Pro Leu Arg Gln Leu Leu Leu  
245 250 255

Ala Leu Leu Gln Arg Asn His Lys Asp Arg Met Asp Phe Asp Glu Phe  
260 265 270

Phe His His Pro Phe Leu Asp Ala Ser Pro Ser Val Arg Lys Ser Pro  
275 280 285

Pro Val Pro Val Pro Ser Tyr Pro Ser Ser Gly Ser Gly Ser Ser Ser  
290 295 300

Ser Ser Ser Ser Thr Ser His Leu Ala Ser Pro Pro Ser Leu Gly Glu  
305 310 315 320

Met Gln Gln Leu Gln Lys Thr Leu  
325

<210> 128  
<211> 376  
<212> PRT  
<213> Homo sapiens

<400> 128  
Ser Ala Val Asn Gly Thr Ser Ser Ala Glu Thr Asn Leu Glu Ala Leu  
1 5 10 15

Gln Lys Lys Leu Glu Glu Leu Glu Leu Asp Glu Gln Gln Arg Lys Arg  
20 25 30

Leu Glu Ala Phe Leu Thr Gln Lys Gln Lys Val Gly Glu Leu Lys Asp  
35 40 45

Asp Asp Phe Glu Lys Ile Ser Glu Leu Gly Ala Gly Asn Gly Gly Val  
50 55 60

Val Phe Lys Val Ser His Lys Pro Ser Gly Leu Val Met Ala Arg Lys  
65 70 75 80

Leu Ile His Leu Glu Ile Lys Pro Ala Ile Arg Asn Gln Ile Ile Arg  
85 90 95

Glu Leu Gln Val Leu His Glu Cys Asn Ser Pro Tyr Ile Val Gly Phe  
100 105 110

Tyr Gly Ala Phe Tyr Ser Asp Gly Glu Ile Ser Ile Cys Met Glu His  
115 120 125

Met Asp Gly Gly Ser Leu Asp Gln Val Leu Lys Lys Ala Gly Arg Ile  
130 135 140

Pro Glu Gln Ile Leu Gly Lys Val Ser Ile Ala Val Ile Lys Gly Leu  
145 150 155 160

Thr Tyr Leu Arg Glu Lys His Lys Ile Met His Arg Asp Val Lys Pro  
165 170 175

160

Ser Asn Ile Leu Val Asn Ser Arg Gly Glu Ile Lys Leu Cys Asp Phe  
180 185 190

Gly Val Ser Gly Gln Leu Ile Asp Ser Met Ala Asn Ser Phe Val Gly  
195 200 205

Thr Arg Ser Tyr Met Ser Pro Glu Arg Leu Gln Gly Thr His Tyr Ser  
210 215 220

Val Gln Ser Asp Ile Trp Ser Met Gly Leu Ser Leu Val Glu Met Ala  
225 230 235 240

Val Gly Arg Tyr Pro Ile Pro Pro Pro Asp Ala Lys Glu Leu Glu Leu  
245 250 255

Met Phe Gly Cys Gln Val Glu Gly Asp Ala Ala Glu Thr Pro Pro Arg  
260 265 270

Pro Arg Thr Pro Gly Arg Pro Leu Ser Ser Tyr Gly Met Asp Ser Arg  
275 280 285

Pro Pro Met Ala Ile Phe Glu Leu Leu Asp Tyr Ile Val Asn Glu Pro  
290 295 300

Pro Pro Lys Leu Pro Ser Gly Val Phe Ser Leu Glu Phe Gln Asp Phe  
305 310 315 320

Val Asn Lys Cys Leu Ile Lys Asn Pro Ala Glu Arg Ala Asp Leu Lys  
325 330 335

Gln Leu Met Val His Ala Phe Ile Lys Arg Ser Asp Ala Glu Glu Val  
340 345 350

Asp Phe Ala Gly Trp Leu Cys Ser Thr Ile Gly Leu Asn Gln Pro Ser  
355 360 365

Thr Pro Thr His Ala Ala Gly Val  
370 375

<210> 129

<211> 348

<212> PRT

<213> Homo sapiens

<400> 129

Trp Glu Ala Gly His Gly Gly Asn Val Ala Leu Pro Leu Lys Glu Thr  
1 5 10 15

Ser Val Glu Asn Phe Leu Gly Ala Thr Thr Pro Ala Leu Ala Lys Leu  
20 25 30

Gln Val Pro Arg Glu Gln Leu Ser Glu Val Leu Glu Gln Ile Cys Ser  
35 40 45

Gly Ser Cys Gly Pro Ile Phe Arg Ala Asn Met Asn Thr Gly Asp Pro  
50 55 60



Ser	Lys	Pro	Lys	Ser	Val	Ile	Leu	Lys	Ala	Leu	Lys	Glu	Pro	Ala	Gly	65	70	75	80
Leu	His	Glu	Val	Gln	Asp	Phe	Leu	Gly	Arg	Ile	Gln	Phe	His	Gln	Tyr	85	90	95	
Leu	Gly	Lys	His	Lys	Asn	Leu	Val	Gln	Leu	Glu	Gly	Cys	Cys	Thr	Glu	100	105	110	
Lys	Leu	Pro	Leu	Tyr	Met	Val	Leu	Glu	Asp	Val	Ala	Gln	Gly	Asp	Leu	115	120	125	
Leu	Gly	Phe	Leu	Trp	Thr	Cys	Arg	Arg	Asp	Val	Met	Thr	Met	Asp	Gly	130	135	140	
Leu	Leu	Tyr	Asp	Leu	Thr	Glu	Lys	Gln	Val	Tyr	His	Ile	Gly	Lys	Gln	145	150	155	160
Val	Leu	Leu	Ala	Leu	Glu	Phe	Leu	Gln	Glu	Lys	His	Leu	Phe	His	Gly	165	170		175
Asp	Val	Ala	Ala	Arg	Asn	Ile	Leu	Met	Gln	Ser	Asp	Leu	Thr	Ala	Lys	180	185		190
Leu	Cys	Gly	Leu	Gly	Leu	Ala	Tyr	Glu	Val	Tyr	Thr	Arg	Gly	Ala	Ile	195	200	205	
Ser	Ser	Thr	Gln	Thr	Ile	Pro	Leu	Lys	Trp	Leu	Ala	Pro	Glu	Arg	Leu	210	215	220	
Leu	Leu	Arg	Pro	Ala	Ser	Ile	Arg	Ala	Asp	Val	Trp	Ser	Phe	Gly	Ile	225	230	235	240
Leu	Leu	Tyr	Glu	Met	Val	Thr	Leu	Gly	Ala	Pro	Pro	Tyr	Pro	Glu	Val	245	250	255	
Pro	Pro	Thr	Ser	Ile	Leu	Glu	His	Leu	Gln	Arg	Arg	Lys	Ile	Met	Lys	260	265	270	
Arg	Pro	Ser	Ser	Cys	Thr	His	Thr	Met	Tyr	Ser	Ile	Met	Lys	Ser	Cys	275	280	285	
Trp	Arg	Trp	Arg	Glu	Ala	Asp	Arg	Pro	Ser	Pro	Arg	Glu	Leu	Arg	Leu	290	295	300	
Arg	Leu	Glu	Ala	Ala	Ile	Lys	Thr	Ala	Asp	Asp	Glu	Ala	Val	Leu	Gln	305	310	315	320
Val	Pro	Glu	Leu	Val	Val	Pro	Glu	Leu	Tyr	Ala	Ala	Val	Ala	Gly	Ile	325	330	335	
Arg	Val	Glu	Ser	Leu	Phe	Tyr	Asn	Tyr	Ser	Met	Leu					340	345		

<210> 130  
 <211> 348  
 <212> PRT  
 <213> Homo sapiens

<400> 130  
 Pro Val Ile Pro Lys Gly Ser Ser Val Gly Thr Gly Thr Asn Leu His  
   1                  5                  10                  15  
 Arg Asp Ile Ser Val Ser Ile Ser Val Ser Asn Cys Gln Ile Gln Glu  
                   20                  25                  30  
 Asn Val Asp Ile Ser Thr Val Tyr Gln Ile Phe Pro Asp Glu Val Leu  
                   35                  40                  45  
 Gly Ser Gly Gln Phe Gly Ile Val Tyr Gly Gly Lys His Arg Lys Thr  
                   50                  55                  60  
 Gly Arg Asp Val Ala Ile Lys Ile Ile Asp Lys Leu Arg Phe Pro Thr  
                   65                  70                  75                  80  
 Lys Gln Glu Ser Gln Leu Arg Asn Glu Val Ala Ile Leu Gln Asn Leu  
                   85                  90                  95  
 His His Pro Gly Val Val Asn Leu Glu Cys Met Phe Glu Thr Pro Glu  
                   100                  105                  110  
 Arg Val Phe Val Val Met Glu Lys Leu His Gly Asp Met Leu Glu Met  
                   115                  120                  125  
 Ile Leu Ser Ser Glu Lys Gly Arg Leu Pro Glu His Ile Thr Lys Phe  
                   130                  135                  140  
 Leu Ile Thr Gln Ile Leu Val Ala Leu Arg His Leu His Phe Lys Asn  
                   145                  150                  155                  160  
 Ile Val His Cys Asp Leu Lys Pro Glu Asn Val Leu Leu Ala Ser Ala  
                   165                  170                  175  
 Asp Pro Phe Pro Gln Val Lys Leu Cys Asp Phe Gly Phe Ala Arg Ile  
                   180                  185                  190  
 Ile Gly Glu Lys Ser Phe Arg Arg Ser Val Val Gly Thr Pro Ala Tyr  
                   195                  200                  205  
 Leu Ala Pro Glu Val Leu Arg Asn Lys Gly Tyr Asn Arg Ser Leu Asp  
                   210                  215                  220  
 Met Trp Ser Val Gly Val Ile Ile Tyr Val Ser Leu Ser Gly Thr Phe  
                   225                  230                  235                  240  
 Pro Phe Asn Glu Asp Glu Asp Ile His Asp Gln Ile Gln Asn Ala Ala  
                   245                  250                  255  
 Phe Met Tyr Pro Pro Asn Pro Trp Lys Glu Ile Ser His Glu Ala Ile  
                   260                  265                  270

Asp Leu Ile Asn Asn Leu Leu Gln Val Lys Met Arg Lys Arg Tyr Ser  
 275 280 285

Val Asp Lys Thr Leu Ser His Pro Trp Leu Gln Asp Tyr Gln Thr Trp  
 290 295 300

Leu Asp Leu Arg Glu Leu Glu Cys Lys Ile Gly Glu Arg Tyr Ile Thr  
 305 310 315 320

His Glu Ser Asp Asp Leu Arg Trp Glu Lys Tyr Ala Gly Glu Gln Arg  
 325 330 335

Leu Gln Tyr Pro Thr His Leu Ile Asn Pro Ser Ala  
 340 345

<210> 131

<211> 374

<212> PRT

<213> Homo sapiens

<400> 131

Ser Ser Tyr Lys Ser Lys His Arg Ile His His Ser Thr Ser His Arg  
 1 5 10 15

Arg Ser His Gly Lys Ser His Arg Arg Lys Arg Thr Arg Ser Val Glu  
 20 25 30

Asp Asp Glu Glu Gly His Leu Ile Cys Gln Ser Gly Asp Val Leu Ser  
 35 40 45

Ala Arg Tyr Glu Ile Val Asp Thr Leu Gly Glu Gly Ala Phe Gly Lys  
 50 55 60

Val Val Glu Cys Ile Asp His Lys Ala Gly Gly Arg His Val Ala Val  
 65 70 75 80

Lys Ile Val Lys Asn Val Asp Arg Tyr Cys Glu Ala Ala Arg Ser Glu  
 85 90 95

Ile Gln Val Leu Glu His Leu Asn Thr Thr Asp Pro Asn Ser Thr Phe  
 100 105 110

Arg Cys Val Gln Met Leu Glu Trp Phe Glu His His Gly His Ile Cys  
 115 120 125

Ile Val Phe Glu Leu Leu Gly Leu Ser Thr Tyr Asp Phe Ile Lys Glu  
 130 135 140

Asn Gly Phe Leu Pro Phe Arg Leu Asp His Ile Arg Lys Met Ala Tyr  
 145 150 155 160

Gln Ile Cys Lys Ser Val Asn Phe Leu His Ser Asn Lys Leu Thr His  
 165 170 175

Thr Asp Leu Lys Pro Glu Asn Ile Leu Phe Val Gln Ser Asp Tyr Thr  
 180 185 190

Glu Ala Tyr Asn Pro Lys Ile Lys Arg Asp Glu Arg Thr Leu Ile Asn  
 195 200 205

Pro Asp Ile Lys Val Val Asp Phe Gly Ser Ala Thr Tyr Asp Asp Glu  
 210 215 220

His His Ser Thr Leu Val Ser Thr Arg His Tyr Arg Ala Pro Glu Val  
 225 230 235 240

Ile Leu Ala Leu Gly Trp Ser Gln Pro Cys Asp Val Trp Ser Ile Gly  
 245 250 255

Cys Ile Leu Ile Glu Tyr Tyr Leu Gly Phe Thr Val Phe Pro Thr His  
 260 265 270

Asp Ser Lys Glu His Leu Ala Met Met Glu Arg Ile Leu Gly Pro Leu  
 275 280 285

Pro Lys His Met Ile Gln Lys Thr Arg Lys Arg Lys Tyr Phe His His  
 290 295 300

Asp Arg Leu Asp Trp Asp Glu His Ser Ser Ala Gly Arg Tyr Val Ser  
 305 310 315 320

Arg Ala Cys Lys Pro Leu Lys Glu Phe Met Leu Ser Gln Asp Val Glu  
 325 330 335

His Glu Arg Leu Phe Asp Leu Ile Gln Lys Met Leu Glu Tyr Asp Pro  
 340 345 350

Ala Lys Arg Ile Thr Leu Arg Glu Ala Leu Lys His Pro Phe Phe Asp  
 355 360 365

Leu Leu Lys Lys Ser Ile  
 370

<210> 132

<211> 421

<212> PRT

<213> Homo sapiens

<400> 132

Glu Val Tyr Tyr Ala Lys Lys Lys Arg Arg His Gln Gln Gly Gln Gly  
 1 5 10 15

Asp Asp Ser Ser His Lys Lys Glu Arg Lys Val Tyr Asn Asp Gly Tyr  
 20 25 30

Asp Asp Asp Asn Tyr Asp Tyr Ile Val Lys Asn Gly Glu Lys Trp Met  
 35 40 45

Asp Arg Tyr Glu Ile Asp Ser Leu Ile Gly Lys Gly Ser Phe Gly Gln  
 50 55 60

Val Val Lys Ala Tyr Asp Arg Val Glu Gln Glu Trp Val Ala Ile Lys  
 65 70 75 80

165

Ile	Ile	Lys	Asn	Lys	Lys	Ala	Phe	Leu	Asn	Gln	Ala	Gln	Ile	Glu	Val	85	90	95
Arg	Leu	Leu	Glu	Leu	Met	Asn	Lys	His	Asp	Thr	Glu	Met	Lys	Tyr	Tyr	100	105	110
Ile	Val	His	Leu	Lys	Arg	His	Phe	Met	Phe	Arg	Asn	His	Leu	Cys	Leu	115	120	125
Val	Phe	Glu	Met	Leu	Ser	Tyr	Asn	Leu	Tyr	Asp	Leu	Leu	Arg	Asn	Thr	130	135	140
Asn	Phe	Arg	Gly	Val	Ser	Leu	Asn	Leu	Thr	Arg	Lys	Phe	Ala	Gln	Gln	145	150	155
Met	Cys	Thr	Ala	Leu	Leu	Phe	Leu	Ala	Thr	Pro	Glu	Leu	Ser	Ile	Ile	165	170	175
His	Cys	Asp	Leu	Lys	Pro	Glu	Asn	Ile	Leu	Leu	Cys	Asn	Pro	Lys	Arg	180	185	190
Ser	Ala	Ile	Lys	Ile	Val	Asp	Phe	Gly	Ser	Ser	Cys	Gln	Leu	Gly	Gln	195	200	205
Arg	Ile	Tyr	Gln	Tyr	Ile	Gln	Ser	Arg	Phe	Tyr	Arg	Ser	Pro	Glu	Val	210	215	220
Leu	Leu	Gly	Met	Pro	Tyr	Asp	Leu	Ala	Ile	Asp	Met	Trp	Ser	Leu	Gly	225	230	235
Cys	Ile	Leu	Val	Glu	Met	His	Thr	Gly	Glu	Pro	Leu	Phe	Ser	Gly	Ala	245	250	255
Asn	Glu	Val	Asp	Gln	Met	Asn	Lys	Ile	Val	Glu	Val	Leu	Gly	Ile	Pro	260	265	270
Pro	Ala	His	Ile	Leu	Asp	Gln	Ala	Pro	Lys	Ala	Arg	Lys	Phe	Phe	Glu	275	280	285
Lys	Leu	Pro	Asp	Gly	Thr	Trp	Asn	Leu	Lys	Lys	Thr	Lys	Asp	Gly	Lys	290	295	300
Arg	Glu	Tyr	Lys	Pro	Pro	Gly	Thr	Arg	Lys	Leu	His	Asn	Ile	Leu	Gly	305	310	315
Val	Glu	Thr	Gly	Gly	Pro	Gly	Gly	Arg	Arg	Ala	Gly	Glu	Ser	Gly	His	325	330	335
Thr	Val	Ala	Asp	Tyr	Leu	Lys	Phe	Lys	Asp	Leu	Ile	Leu	Arg	Met	Leu	340	345	350
Asp	Tyr	Asp	Pro	Lys	Thr	Arg	Ile	Gln	Pro	Tyr	Tyr	Ala	Leu	Gln	His	355	360	365
Ser	Phe	Phe	Lys	Lys	Thr	Ala	Asp	Glu	Gly	Thr	Asn	Thr	Ser	Asn	Ser	370	375	380

Val Ser Thr Ser Pro Ala Met Glu Gln Ser Gln Ser Ser Gly Thr Thr  
385 390 395 400

Ser Ser Thr Ser Ser Ser Ser Gly Gly Ser Ser Gly Thr Ser Asn Ser  
405 410 415

Gly Arg Ala Arg Ser  
420

<210> 133

<211> 429

<212> PRT

<213> Homo sapiens

<400> 133

Glu His Pro Pro Met Ile Gln Asn Asn Ala Ser Gly Ala Thr Val Ala  
1 5 10 15

Thr Ala Thr Thr Ser Thr Ala Thr Ser Lys Asn Ser Gly Ser Asn Ser  
20 25 30

Glu Gly Asp Tyr Gln Leu Val Gln His Glu Val Leu Cys Ser Met Thr  
35 40 45

Asn Thr Tyr Glu Val Leu Glu Phe Leu Gly Arg Gly Thr Phe Gly Gln  
50 55 60

Val Val Lys Cys Trp Lys Arg Gly Thr Asn Glu Ile Val Ala Ile Lys  
65 70 75 80

Ile Leu Lys Asn Arg Pro Ser Tyr Ala Arg Gln Gly Gln Ile Glu Val  
85 90 95

Ser Ile Leu Ala Arg Leu Ser Thr Glu Ser Ala Asp Asp Tyr Asn Phe  
100 105 110

Val Arg Ala Tyr Glu Cys Phe Gln His Lys Asn His Thr Cys Leu Val  
115 120 125

Phe Glu Met Leu Glu Gln Asn Leu Tyr Asp Phe Leu Lys Gln Asn Lys  
130 135 140

Phe Ser Pro Leu Pro Leu Lys Tyr Ile Arg Pro Val Leu Gln Gln Val  
145 150 155 160

Ala Thr Ala Leu Met Lys Leu Lys Ser Leu Gly Leu Ile His Ala Asp  
165 170 175

Leu Lys Pro Glu Asn Ile Met Leu Val Asp Pro Ser Arg Gln Pro Tyr  
180 185 190

Arg Val Lys Val Ile Asp Phe Gly Ser Ala Ser His Val Ser Lys Ala  
195 200 205

Val Cys Ser Thr Tyr Leu Gln Ser Arg Tyr Tyr Arg Ala Pro Glu Ile  
210 215 220

Ile Leu Gly Leu Pro Phe Cys Glu Ala Ile Asp Met Trp Ser Leu Gly  
 225 230 235 240  
 Cys Val Ile Ala Glu Leu Phe Leu Gly Trp Pro Leu Tyr Pro Gly Ala  
 245 250 255  
 Ser Glu Tyr Asp Gln Ile Arg Tyr Ile Ser Gln Thr Gln Gly Leu Pro  
 260 265 270  
 Ala Glu Tyr Leu Leu Ser Ala Gly Thr Lys Thr Thr Arg Phe Phe Asn  
 275 280 285  
 Arg Asp Thr Asp Ser Pro Tyr Pro Leu Trp Arg Leu Lys Thr Pro Asp  
 290 295 300  
 Asp His Glu Ala Glu Thr Gly Ile Lys Ser Lys Glu Ala Arg Lys Tyr  
 305 310 315 320  
 Ile Phe Asn Cys Leu Asp Asp Met Ala Gln Val Asn Met Thr Thr Asp  
 325 330 335  
 Leu Glu Gly Ser Asp Met Leu Val Glu Lys Ala Asp Arg Arg Glu Phe  
 340 345 350  
 Ile Asp Leu Leu Lys Lys Met Leu Thr Ile Asp Ala Asp Lys Arg Ile  
 355 360 365  
 Thr Pro Ile Glu Thr Leu Asn His Pro Phe Val Thr Met Thr His Leu  
 370 375 380  
 Leu Asp Phe Pro His Ser Thr His Val Lys Ser Cys Phe Gln Asn Met  
 385 390 395 400  
 Glu Ile Cys Lys Arg Arg Val Asn Met Tyr Asp Thr Val Asn Gln Ser  
 405 410 415  
 Lys Thr Pro Phe Ile Thr His Val Ala Pro Ser Thr Ser  
 420 425

&lt;210&gt; 134

&lt;211&gt; 371

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 134

Asp Asp Met Phe Ala Ala Tyr Phe Asp Ser Ala Arg Leu Arg Ala Ala  
 1 5 10 15  
 Gly Ile Gly Lys Asp Phe Lys Glu Asn Pro Asn Leu Arg Asp Asn Trp  
 20 25 30  
 Thr Asp Ala Glu Gly Tyr Tyr Arg Val Asn Ile Gly Glu Val Leu Asp  
 35 40 45  
 Lys Arg Tyr Asn Val Tyr Gly Tyr Thr Gly Gln Gly Val Phe Ser Asn  
 50 55 60

Val	Val	Arg	Ala	Arg	Asp	Asn	Ala	Arg	Ala	Asn	Gln	Glu	Val	Ala	Val	65	70	75	80
Lys	Ile	Ile	Arg	Asn	Asn	Glu	Leu	Met	Gln	Lys	Thr	Gly	Leu	Lys	Glu	85	90	95	
Leu	Glu	Phe	Leu	Lys	Lys	Leu	Asn	Asp	Ala	Asp	Pro	Asp	Asp	Lys	Phe	100	105	110	
His	Cys	Leu	Arg	Leu	Phe	Arg	His	Phe	Tyr	His	Lys	Gln	His	Leu	Cys	115	120	125	
Leu	Val	Phe	Glu	Pro	Leu	Ser	Met	Asn	Leu	Arg	Glu	Val	Leu	Lys	Lys	130	135	140	
Tyr	Gly	Lys	Asp	Val	Gly	Leu	His	Ile	Lys	Ala	Val	Arg	Ser	Tyr	Ser	145	150	155	160
Gln	Gln	Leu	Phe	Leu	Ala	Leu	Lys	Leu	Leu	Lys	Arg	Cys	Asn	Ile	Leu	165	170	175	
His	Ala	Asp	Ile	Lys	Pro	Asp	Asn	Ile	Leu	Val	Asn	Glu	Ser	Lys	Thr	180	185	190	
Ile	Leu	Lys	Leu	Cys	Asp	Phe	Gly	Ser	Ala	Ser	His	Val	Ala	Asp	Asn	195	200	205	
Asp	Ile	Thr	Pro	Tyr	Leu	Val	Ser	Arg	Phe	Tyr	Arg	Ala	Pro	Glu	Ile	210	215	220	
Ile	Ile	Gly	Lys	Ser	Tyr	Asp	Tyr	Gly	Ile	Asp	Met	Trp	Ser	Val	Gly	225	230	235	240
Cys	Thr	Leu	Tyr	Glu	Leu	Tyr	Thr	Gly	Lys	Ile	Leu	Phe	Pro	Gly	Lys	245	250	255	
Thr	Asn	Asn	His	Met	Leu	Lys	Leu	Ala	Met	Asp	Leu	Lys	Gly	Lys	Met	260	265	270	
Pro	Asn	Lys	Met	Ile	Arg	Lys	Gly	Val	Phe	Lys	Asp	Gln	His	Phe	Asp	275	280	285	
Gln	Asn	Leu	Asn	Phe	Met	Tyr	Ile	Glu	Val	Asp	Lys	Val	Thr	Glu	Arg	290	295	300	
Glu	Lys	Val	Thr	Val	Met	Ser	Thr	Ile	Asn	Pro	Thr	Lys	Asp	Leu	Leu	305	310	315	320
Ala	Asp	Leu	Ile	Gly	Cys	Gln	Arg	Leu	Pro	Glu	Asp	Gln	Arg	Lys	Lys	325	330	335	
Val	His	Gln	Leu	Lys	Asp	Leu	Leu	Asp	Gln	Ile	Leu	Met	Leu	Asp	Pro	340	345	350	
Ala	Lys	Arg	Ile	Ser	Ile	Asn	Gln	Ala	Leu	Gln	His	Ala	Phe	Ile	Gln	355	360	365	



Glu Lys Ile  
370

<210> 135

<211> 336

<212> PRT

<213> Homo sapiens

<400> 135

Met	Ser	Thr	Ala	Ser	Ala	Ala	Ser	Ser	Ser	Ser	Ser	Ser	Ala	Gly	1	5	10	15	
Glu	Met	Ile	Glu	Ala	Pro	Ser	Gln	Val	Leu	Asn	Phe	Glu	Glu	Ile	Asp	20	25	30	
Tyr	Lys	Glu	Ile	Glu	Val	Glu	Glu	Val	Val	Gly	Arg	Gly	Ala	Phe	Gly	35	40	45	
Val	Val	Cys	Lys	Ala	Lys	Trp	Arg	Ala	Lys	Asp	Val	Ala	Ile	Lys	Gln	50	55	60	
Ile	Glu	Ser	Glu	Ser	Glu	Arg	Lys	Ala	Phe	Ile	Val	Glu	Leu	Arg	Gln	65	70	75	80
Leu	Ser	Arg	Val	Asn	His	Pro	Asn	Ile	Val	Lys	Leu	Tyr	Gly	Ala	Cys	85	90	95	
Leu	Asn	Pro	Val	Cys	Leu	Val	Met	Glu	Tyr	Ala	Glu	Gly	Gly	Ser	Leu	100	105	110	
Tyr	Asn	Val	Leu	His	Gly	Ala	Glu	Pro	Leu	Pro	Tyr	Tyr	Thr	Ala	Ala	115	120	125	
His	Ala	Met	Ser	Trp	Cys	Leu	Gln	Cys	Ser	Gln	Gly	Val	Ala	Tyr	Leu	130	135	140	
His	Ser	Met	Gln	Pro	Lys	Ala	Leu	Ile	His	Arg	Asp	Leu	Lys	Pro	Pro	145	150	155	160
Asn	Leu	Leu	Leu	Val	Ala	Gly	Gly	Thr	Val	Leu	Lys	Ile	Cys	Asp	Phe	165	170	175	
Gly	Thr	Ala	Cys	Asp	Ile	Gln	Thr	His	Met	Thr	Asn	Asn	Lys	Gly	Ser	180	185	190	
Ala	Ala	Trp	Met	Ala	Pro	Glu	Val	Phe	Glu	Gly	Ser	Asn	Tyr	Ser	Glu	195	200	205	
Lys	Cys	Asp	Val	Phe	Ser	Trp	Gly	Ile	Ile	Leu	Trp	Glu	Val	Ile	Thr	210	215	220	
Arg	Arg	Lys	Pro	Phe	Asp	Glu	Ile	Gly	Gly	Pro	Ala	Phe	Arg	Ile	Met	225	230	235	240
Trp	Ala	Val	His	Asn	Gly	Thr	Arg	Pro	Pro	Leu	Ile	Lys	Asn	Leu	Pro	245	250	255	

170

Lys Pro Ile Glu Ser Leu Met Thr Arg Cys Trp Ser Lys Asp Pro Ser  
 260 265 270  
 Gln Arg Pro Ser Met Glu Glu Ile Val Lys Ile Met Thr His Leu Met  
 275 280 285  
 Arg Tyr Phe Pro Gly Ala Asp Glu Pro Leu Gln Tyr Pro Cys Gln Tyr  
 290 295 300  
 Ser Asp Glu Gly Gln Ser Asn Ser Ala Thr Ser Thr Gly Ser Phe Met  
 305 310 315 320  
 Asp Ile Ala Ser Thr Asn Thr Ser Asn Lys Ser Asp Thr Asn Met Glu  
 325 330 335

<210> 136  
 <211> 330  
 <212> PRT  
 <213> Homo sapiens

<400> 136  
 Ala Pro Ala Ala Pro Ala Gly Leu Gln Leu Pro Gln Glu Ile Pro Phe  
 1 5 10 15  
 His Glu Leu Gln Leu Glu Glu Ile Ile Gly Val Gly Gly Phe Gly Lys  
 20 25 30  
 Val Tyr Arg Ala Leu Trp Arg Gly Glu Glu Val Ala Val Lys Ala Ala  
 35 40 45  
 Arg Leu Asp Pro Glu Lys Asp Pro Ala Val Thr Ala Glu Gln Val Cys  
 50 55 60  
 Gln Glu Ala Arg Leu Phe Gly Ala Leu Gln His Pro Asn Ile Ile Ala  
 65 70 75 80  
 Leu Arg Gly Ala Cys Leu Asn Pro Pro His Leu Cys Leu Val Met Glu  
 85 90 95  
 Tyr Ala Arg Gly Gly Ala Leu Ser Arg Val Leu Ala Gly Arg Arg Val  
 100 105 110  
 Pro Pro His Val Leu Val Asn Trp Ala Val Gln Val Ala Arg Gly Met  
 115 120 125  
 Asn Tyr Leu His Asn Asp Ala Pro Val Pro Ile Ile His Arg Asp Leu  
 130 135 140  
 Lys Ser Ile Asn Ile Leu Ile Leu Glu Ala Ile Glu Asn His Asn Leu  
 145 150 155 160  
 Ala Asp Thr Val Leu Lys Ile Thr Asp Phe Gly Leu Ala Arg Glu Trp  
 165 170 175

171

His Lys Thr Thr Lys Met Ser Ala Ala Gly Thr Tyr Ala Trp Met Ala  
180 185 190

Pro Glu Val Ile Arg Leu Ser Leu Phe Ser Lys Ser Ser Asp Val Trp  
195 200 205

Ser Phe Gly Val Leu Leu Trp Glu Leu Leu Thr Gly Glu Val Pro Tyr  
210 215 220

Arg Glu Ile Asp Ala Leu Ala Val Ala Tyr Gly Val Ala Met Asn Lys  
225 230 235 240

Leu Thr Leu Pro Ile Pro Ser Thr Cys Pro Glu Pro Phe Ala Arg Leu  
245 250 255

Leu Glu Glu Cys Trp Asp Pro Asp Pro His Gly Arg Pro Asp Phe Gly  
260 265 270

Ser Ile Leu Lys Arg Leu Glu Val Ile Glu Gln Ser Ala Leu Phe Gln  
275 280 285

Met Pro Leu Glu Ser Phe His Ser Leu Gln Glu Asp Trp Lys Leu Glu  
290 295 300

Ile Gln His Met Phe Asp Asp Leu Arg Thr Lys Glu Lys Glu Leu Arg  
305 310 315 320

Ser Arg Glu Glu Glu Leu Leu Arg Ala Ala  
325 330

<210> 137

<211> 312

<212> PRT

<213> Homo sapiens

<400> 137

Met Ser Ser Leu Gly Ala Ser Phe Val Gln Ile Lys Phe Asp Asp Leu  
1 5 10 15

Gln Phe Phe Glu Asn Cys Gly Gly Gly Ser Phe Gly Ser Val Tyr Arg  
20 25 30

Ala Lys Trp Ile Ser Gln Asp Lys Glu Val Ala Val Lys Lys Leu Leu  
35 40 45

Lys Ile Glu Lys Glu Ala Glu Ile Leu Ser Val Leu Ser His Arg Asn  
50 55 60

Ile Ile Gln Phe Tyr Gly Val Ile Leu Glu Pro Pro Asn Tyr Gly Ile  
65 70 75 80

Val Thr Glu Tyr Ala Ser Leu Gly Ser Leu Tyr Asp Tyr Ile Asn Ser  
85 90 95

Asn Arg Ser Glu Glu Met Asp Met Asp His Ile Met Thr Trp Ala Thr  
100 105 110

Asp Val Ala Lys Gly Met His Tyr Leu His Met Glu Ala Pro Val Lys  
 115 120 125

Val Ile His Arg Asp Leu Lys Ser Arg Asn Val Val Ile Ala Ala Asp  
 130 135 140

Gly Val Leu Lys Ile Cys Asp Phe Gly Ala Ser Arg Phe His Asn His  
 145 150 155 160

Thr Thr His Met Ser Leu Val Gly Thr Phe Pro Trp Met Ala Pro Glu  
 165 170 175

Val Ile Gln Ser Leu Pro Val Ser Glu Thr Cys Asp Thr Tyr Ser Tyr  
 180 185 190

Gly Val Val Leu Trp Glu Met Leu Thr Arg Glu Val Pro Phe Lys Gly  
 195 200 205

Leu Glu Gly Leu Gln Val Ala Trp Leu Val Val Glu Lys Asn Glu Arg  
 210 215 220

Leu Thr Ile Pro Ser Ser Cys Pro Arg Ser Phe Ala Glu Leu Leu His  
 225 230 235 240

Gln Cys Trp Glu Ala Asp Ala Lys Lys Arg Pro Ser Phe Lys Gln Ile  
 245 250 255

Ile Ser Ile Leu Glu Ser Met Ser Asn Asp Thr Ser Leu Pro Asp Lys  
 260 265 270

Cys Asn Ser Phe Leu His Asn Lys Ala Glu Trp Arg Cys Glu Ile Glu  
 275 280 285

Ala Thr Leu Glu Arg Leu Lys Lys Leu Glu Arg Asp Leu Ser Phe Lys  
 290 295 300

Glu Gln Glu Leu Lys Glu Arg Glu  
 305 310

<210> 138

<211> 359

<212> PRT

<213> Homo sapiens

<400> 138

Cys Asn Glu Tyr Ser Gln Pro Gly Gly Asp Gly Ser Tyr Val Ser Val  
 1 5 10 15

Pro Ser Pro Leu Gly Lys Ile Lys Ser Met Thr Lys Glu Lys Ala Asp  
 20 25 30

Ile Leu Leu Leu Arg Ala Gly Leu Pro Ser His Phe His Leu Gln Leu  
 35 40 45

Ser Glu Ile Glu Phe His Glu Ile Ile Gly Ser Gly Ser Phe Gly Lys  
 50 55 60

Val	Tyr	Lys	Gly	Arg	Cys	Arg	Asn	Lys	Ile	Val	Ala	Ile	Lys	Arg	Tyr	65	70	75	80
Arg	Ala	Asn	Thr	Tyr	Cys	Ser	Lys	Ser	Asp	Val	Asp	Met	Phe	Cys	Arg	85	90	95	
Glu	Val	Ser	Ile	Leu	Cys	Gln	Leu	Asn	His	Pro	Cys	Val	Ile	Gln	Phe	100	105	110	
Val	Gly	Ala	Cys	Leu	Asn	Asp	Pro	Ser	Gln	Phe	Ala	Ile	Val	Thr	Gln	115	120	125	
Tyr	Ile	Ser	Gly	Gly	Ser	Leu	Phe	Ser	Leu	Leu	His	Glu	Gln	Lys	Arg	130	135	140	
Ile	Leu	Asp	Leu	Gln	Ser	Lys	Leu	Ile	Ile	Ala	Val	Asp	Val	Ala	Lys	145	150	155	160
Gly	Met	Glu	Tyr	Leu	His	Asn	Leu	Thr	Gln	Pro	Ile	Ile	His	Arg	Asp	165	170	175	
Leu	Asn	Ser	His	Asn	Ile	Leu	Leu	Tyr	Glu	Asp	Gly	His	Ala	Val	Val	180	185	190	
Ala	Asp	Phe	Gly	Glu	Ser	Arg	Phe	Leu	Gln	Ser	Leu	Asp	Glu	Asp	Asn	195	200	205	
Met	Thr	Lys	Gln	Pro	Gly	Asn	Leu	Arg	Trp	Met	Ala	Pro	Glu	Val	Phe	210	215	220	
Thr	Gln	Cys	Thr	Arg	Tyr	Thr	Ile	Lys	Ala	Asp	Val	Phe	Ser	Tyr	Ala	225	230	235	240
Leu	Cys	Leu	Trp	Glu	Ile	Leu	Thr	Gly	Glu	Ile	Pro	Phe	Ala	His	Leu	245	250	255	
Lys	Pro	Ala	Ala	Ala	Ala	Ala	Asp	Met	Ala	Tyr	His	His	Ile	Arg	Pro	260	265	270	
Pro	Ile	Gly	Tyr	Ser	Ile	Pro	Lys	Pro	Ile	Ser	Ser	Leu	Leu	Ile	Arg	275	280	285	
Gly	Trp	Asn	Ala	Cys	Pro	Glu	Gly	Arg	Pro	Glu	Phe	Ser	Glu	Val	Val	290	295	300	
Met	Lys	Leu	Glu	Glu	Cys	Leu	Cys	Asn	Ile	Glu	Leu	Met	Ser	Pro	Ala	305	310	315	320
Ser	Ser	Asn	Ser	Ser	Gly	Ser	Leu	Ser	Pro	Ser	Ser	Ser	Ser	Asp	Cys	325	330	335	
Leu	Val	Asn	Arg	Gly	Gly	Pro	Gly	Arg	Ser	His	Val	Ala	Ala	Leu	Arg	340	345	350	
Ser	Arg	Phe	Glu	Leu	Glu	Tyr										355			

<210> 139  
 <211> 350  
 <212> PRT  
 <213> Homo sapiens

<400> 139

Asn	Leu	Ser	Pro	Thr	Gly	Trp	Ser	Gln	Pro	Lys	Thr	Pro	Val	Pro	Ala
1				5					10					15	
Gln	Arg	Glu	Arg	Ala	Pro	Val	Ser	Gly	Thr	Gln	Glu	Lys	Asn	Lys	Ile
		20						25					30		
Arg	Pro	Arg	Gly	Gln	Arg	Asp	Ser	Ser	Tyr	Tyr	Trp	Glu	Ile	Glu	Ala
		35					40					45			
Ser	Glu	Val	Met	Leu	Ser	Thr	Arg	Ile	Gly	Ser	Gly	Ser	Phe	Gly	Thr
	50					55					60				
Val	Tyr	Lys	Gly	Lys	Trp	His	Gly	Asp	Val	Ala	Val	Lys	Ile	Leu	Lys
65					70					75					80
Val	Val	Asp	Pro	Thr	Pro	Glu	Gln	Phe	Gln	Ala	Phe	Arg	Asn	Glu	Val
				85					90					95	
Ala	Val	Leu	Arg	Lys	Thr	Arg	His	Val	Asn	Ile	Leu	Leu	Phe	Met	Gly
			100					105					110		
Tyr	Met	Thr	Lys	Asp	Asn	Leu	Ala	Ile	Val	Thr	Gln	Trp	Cys	Glu	Gly
		115				120						125			
Ser	Ser	Leu	Tyr	Lys	His	Leu	His	Val	Gln	Glu	Thr	Lys	Phe	Gln	Met
	130					135					140				
Phe	Gln	Leu	Ile	Asp	Ile	Ala	Arg	Gln	Thr	Ala	Gln	Gly	Met	Asp	Tyr
145					150					155					160
Leu	His	Ala	Lys	Asn	Ile	Ile	His	Arg	Asp	Met	Lys	Ser	Asn	Asn	Ile
			165						170					175	
Phe	Leu	His	Glu	Gly	Leu	Thr	Val	Lys	Ile	Gly	Asp	Phe	Gly	Leu	Ala
			180					185					190		
Thr	Val	Lys	Ser	Arg	Trp	Ser	Gly	Ser	Gln	Gln	Val	Glu	Gln	Pro	Thr
		195					200						205		
Gly	Ser	Val	Leu	Trp	Met	Ala	Pro	Glu	Val	Ile	Arg	Met	Gln	Asp	Asn
	210					215					220				
Asn	Pro	Phe	Ser	Phe	Gln	Ser	Asp	Val	Tyr	Ser	Tyr	Gly	Ile	Val	Leu
225					230					235					240
Tyr	Glu	Leu	Met	Thr	Gly	Glu	Leu	Pro	Tyr	Ser	His	Ile	Asn	Asn	Arg
			245						250					255	
Asp	Gln	Ile	Ile	Phe	Met	Val	Gly	Arg	Gly	Tyr	Ala	Ser	Pro	Asp	Leu
		260						265						270	

175

Ser Lys Leu Tyr Lys Asn Cys Pro Lys Ala Met Lys Arg Leu Val Ala  
275 280 285

Asp Cys Val Lys Lys Val Lys Glu Glu Arg Pro Leu Phe Pro Gln Ile  
290 295 300

Leu Ser Ser Ile Glu Leu Leu Gln His Ser Leu Pro Lys Ile Asn Arg  
305 310 315 320

Ser Ala Ser Glu Pro Ser Leu His Arg Ala Ala His Thr Glu Asp Ile  
325 330 335

Asn Ala Cys Thr Leu Thr Thr Ser Pro Arg Leu Pro Val Phe  
340 345 350

<210> 140

<211> 335

<212> PRT

<213> Homo sapiens

<400> 140

Met Glu Gly Asp Gly Gly Thr Pro Trp Ala Leu Ala Leu Leu Arg Thr  
1 5 10 15

Phe Asp Ala Gly Glu Phe Thr Gly Trp Glu Lys Val Gly Ser Gly Gly  
20 25 30

Phe Gly Gln Val Tyr Lys Val Arg His Val His Trp Lys Thr Trp Leu  
35 40 45

Ala Ile Lys Cys Ser Pro Ser Leu His Val Asp Asp Arg Glu Arg Met  
50 55 60

Glu Leu Leu Glu Glu Ala Lys Lys Met Glu Met Ala Lys Phe Arg Tyr  
65 70 75 80

Ile Leu Pro Val Tyr Gly Ile Cys Arg Glu Pro Val Gly Leu Val Met  
85 90 95

Glu Tyr Met Glu Thr Gly Ser Leu Glu Lys Leu Leu Ala Ser Glu Pro  
100 105 110

Leu Pro Trp Asp Leu Arg Phe Arg Ile Ile His Glu Thr Ala Val Gly  
115 120 125

Met Asn Phe Leu His Cys Met Ala Pro Pro Leu Leu His Leu Asp Leu  
130 135 140

Lys Pro Ala Asn Ile Leu Leu Asp Ala His Tyr His Val Lys Ile Ser  
145 150 155 160

Asp Phe Gly Leu Ala Lys Cys Asn Gly Leu Ser His Ser His Asp Leu  
165 170 175

Ser Met Asp Gly Leu Phe Gly Thr Ile Ala Tyr Leu Pro Pro Glu Arg  
180 185 190

Ile Arg Glu Lys Ser Arg Leu Phe Asp Thr Lys His Asp Val Tyr Ser  
 195 200 205  
 Phe Ala Ile Val Ile Trp Gly Val Leu Thr Gln Lys Lys Pro Phe Ala  
 210 215 220  
 Asp Glu Lys Asn Ile Leu His Ile Met Val Lys Val Val Lys Gly His  
 225 230 235 240  
 Arg Pro Glu Leu Pro Pro Val Cys Arg Ala Arg Pro Arg Ala Cys Ser  
 245 250 255  
 His Leu Ile Arg Leu Met Gln Arg Cys Trp Gln Gly Asp Pro Arg Val  
 260 265 270  
 Arg Pro Thr Phe Gln Glu Ile Thr Ser Glu Thr Glu Asp Leu Cys Glu  
 275 280 285  
 Lys Pro Asp Asp Glu Val Lys Glu Thr Ala His Asp Leu Asp Val Lys  
 290 295 300  
 Ser Pro Pro Glu Pro Arg Ser Glu Val Val Pro Ala Arg Leu Lys Arg  
 305 310 315 320  
 Ala Ser Ala Pro Thr Phe Asp Asn Asp Tyr Ser Leu Ser Glu Leu  
 325 330 335

&lt;210&gt; 141

&lt;211&gt; 359

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 141

Arg Gln Lys Pro Val Leu Arg Ser Cys Ser Ile Asp Arg Ser Pro Gly  
 1 5 10 15  
 Ala Gly Ser Leu Gly Ser Pro Ala Ser Gln Arg Lys Asp Leu Gly Arg  
 20 25 30  
 Ser Glu Ser Leu Arg Val Val Cys Arg Pro His Arg Ile Phe Arg Pro  
 35 40 45  
 Ser Asp Leu Ile His Gly Glu Val Leu Gly Lys Gly Cys Phe Gly Gln  
 50 55 60  
 Ala Ile Lys Val Thr His Arg Glu Thr Gly Glu Val Met Val Met Lys  
 65 70 75 80  
 Glu Leu Ile Arg Phe Asp Glu Glu Thr Gln Arg Thr Phe Leu Lys Glu  
 85 90 95  
 Val Lys Val Met Arg Cys Leu Glu His Pro Asn Val Leu Lys Phe Ile  
 100 105 110  
 Gly Val Leu Tyr Lys Asp Lys Arg Leu Asn Phe Ile Thr Glu Tyr Ile  
 115 120 125



Lys Gly Gly Thr Leu Arg Gly Ile Ile Lys Ser Met Asp Ser Gln Tyr  
 130 135 140  
 Pro Trp Ser Gln Arg Val Ser Phe Ala Lys Asp Ile Ala Ser Gly Met  
 145 150 155 160  
 Ala Tyr Leu His Ser Met Asn Ile Ile His Arg Asp Leu Asn Ser His  
 165 170 175  
 Asn Cys Leu Val Arg Glu Asn Lys Asn Val Val Val Ala Asp Phe Gly  
 180 185 190  
 Leu Ala Arg Leu Met Val Asp Glu Lys Thr Gln Pro Glu Gly Leu Arg  
 195 200 205  
 Ser Leu Lys Lys Pro Asp Arg Lys Lys Arg Tyr Thr Val Val Gly Asn  
 210 215 220  
 Pro Tyr Trp Met Ala Pro Glu Met Ile Asn Gly Arg Ser Tyr Asp Glu  
 225 230 235 240  
 Lys Val Asp Val Phe Ser Phe Gly Ile Val Leu Cys Glu Ile Ile Gly  
 245 250 255  
 Arg Val Asn Ala Asp Pro Asp Tyr Leu Pro Arg Thr Met Asp Phe Gly  
 260 265 270  
 Leu Asn Val Arg Gly Phe Leu Asp Arg Tyr Cys Pro Pro Asn Cys Pro  
 275 280 285  
 Pro Ser Phe Phe Pro Ile Thr Val Arg Cys Cys Asp Leu Asp Pro Glu  
 290 295 300  
 Lys Arg Pro Ser Phe Val Lys Leu Glu His Trp Leu Glu Thr Leu Arg  
 305 310 315 320  
 Met His Leu Ala Gly His Leu Pro Leu Gly Pro Gln Leu Glu Gln Leu  
 325 330 335  
 Asp Arg Gly Phe Trp Glu Thr Tyr Arg Arg Gly Glu Ser Gly Leu Pro  
 340 345 350  
 Ala His Pro Glu Val Pro Asp  
 355

&lt;210&gt; 142

&lt;211&gt; 358

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 142

Pro Leu Arg Gly Pro Gly Pro Gly Pro Gly Glu Val Pro Gly Glu Gly  
 1 5 10 15

Pro Pro Gly Pro Gly Gly Thr Gly Gly Gly Pro Gly Arg Gly Arg Pro  
 20 25 30

Ser Ser Tyr Arg Val Leu Arg Ser Ala Val Ser Ser Leu Ala Arg Val  
                   35                                  40                                  45

Asp Asp Phe His Cys Ala Glu Lys Ile Gly Ala Gly Phe Phe Ser Glu  
           50                                  55                                  60

Val Tyr Lys Val Arg His Arg Gln Ser Gly Gln Val Met Val Leu Lys  
       65                                  70                                  75                                  80

Met Asn Lys Leu Pro Ser Asn Arg Gly Asn Thr Leu Arg Glu Val Gln  
                                   85                                  90                                  95

Leu Met Asn Arg Leu Arg His Pro Asn Ile Leu Arg Phe Met Gly Val  
                                  100                                 105                                 110

Cys Val His Gln Gly Gln Leu His Ala Leu Thr Glu Tyr Met Asn Gly  
          115                                 120                                 125

Gly Thr Leu Glu Gln Leu Leu Ser Ser Pro Glu Pro Leu Ser Trp Pro  
      130                                 135                                 140

Val Arg Leu His Leu Ala Leu Asp Ile Ala Arg Gly Leu Arg Tyr Leu  
  145                                 150                                 155                                 160

His Ser Lys Gly Val Phe His Arg Asp Leu Thr Ser Lys Asn Cys Leu  
                                  165                                 170                                 175

Val Arg Arg Glu Asp Arg Gly Phe Thr Ala Val Val Gly Asp Phe Gly  
                                  180                                 185                                 190

Leu Ala Glu Lys Ile Pro Val Tyr Arg Glu Gly Ala Arg Lys Glu Pro  
          195                                 200                                 205

Leu Ala Val Val Gly Ser Pro Tyr Trp Met Ala Pro Glu Val Leu Arg  
  210                                 215                                 220

Gly Glu Leu Tyr Asp Glu Lys Ala Asp Val Phe Ala Phe Gly Ile Val  
  225                                 230                                 235                                 240

Leu Cys Glu Leu Ile Ala Arg Val Pro Ala Asp Pro Asp Tyr Leu Pro  
                                  245                                 250                                 255

Arg Thr Glu Asp Phe Gly Leu Asp Val Pro Ala Phe Arg Thr Leu Val  
                                  260                                 265                                 270

Gly Asp Asp Cys Pro Leu Pro Phe Leu Leu Leu Ala Ile His Cys Cys  
          275                                 280                                 285

Asn Leu Glu Pro Ser Thr Arg Ala Pro Phe Thr Glu Ile Thr Gln His  
  290                                 295                                 300

Leu Glu Trp Ile Leu Glu Gln Leu Pro Glu Pro Ala Pro Leu Thr Arg  
  305                                 310                                 315                                 320

Thr Ala Leu Thr His Asn Gln Gly Ser Val Ala Arg Gly Gly Pro Ser  
                                  325                                 330                                 335

Ala Thr Leu Pro Arg Pro Asp Pro Arg Leu Ser Arg Ser Arg Ser Asp  
                   340                  345                  350

Leu Phe Leu Pro Pro Ser  
                   355

<210> 143

<211> 325

<212> PRT

<213> Homo sapiens

<400> 143

Thr Pro Val Gln Asn Leu Glu Gln Ser Tyr Met Pro Pro Asp Ser Ser  
   1                  5                  10                  15

Ser Pro Glu Asn Lys Ser Leu Glu Val Ser Asp Thr Arg Phe His Ser  
                   20                  25                  30

Phe Ser Phe Tyr Glu Leu Lys Asn Val Thr Asn Asn Phe Asp Glu Arg  
                   35                  40                  45

Pro Ile Ser Val Gly Gly Asn Lys Met Gly Glu Gly Gly Phe Gly Val  
                   50                  55                  60

Val Tyr Lys Gly Tyr Val Asn Asn Thr Thr Val Ala Val Lys Lys Leu  
   65                  70                  75                  80

Ala Ala Met Val Asp Ile Thr Thr Glu Glu Leu Lys Gln Gln Phe Asp  
                   85                  90                  95

Gln Glu Ile Lys Val Met Ala Lys Cys Gln His Glu Asn Leu Val Glu  
                   100                  105                  110

Leu Leu Gly Phe Ser Ser Asp Gly Asp Asp Leu Cys Leu Val Tyr Val  
                   115                  120                  125

Tyr Met Pro Asn Gly Ser Leu Leu Asp Arg Leu Ser Cys Leu Asp Gly  
                   130                  135                  140

Thr Pro Pro Leu Ser Trp His Met Arg Cys Lys Ile Ala Gln Gly Ala  
   145                  150                  155                  160

Ala Asn Gly Ile Asn Phe Leu His Glu Asn His His Ile His Arg Asp  
                   165                  170                  175

Ile Lys Ser Ala Asn Ile Leu Leu Asp Glu Ala Phe Thr Ala Lys Ile  
                   180                  185                  190

Ser Asp Phe Gly Leu Ala Arg Ala Ser Glu Lys Phe Ala Gln Thr Val  
                   195                  200                  205

Met Thr Ser Arg Ile Val Gly Thr Thr Ala Tyr Met Ala Pro Glu Ala  
                   210                  215                  220

Leu Arg Gly Glu Ile Thr Pro Lys Ser Asp Ile Tyr Ser Phe Gly Val  
   225                  230                  235                  240

180

Val Leu Leu Glu Ile Ile Thr Gly Leu Pro Ala Val Asp Glu His Arg  
245 250 255

Glu Pro Gln Leu Leu Leu Asp Ile Lys Glu Glu Ile Glu Asp Glu Glu  
260 265 270

Lys Thr Ile Glu Asp Tyr Ile Asp Lys Lys Met Asn Asp Ala Asp Ser  
275 280 285

Thr Ser Val Glu Ala Met Tyr Ser Gly Ala Ser Gln Cys Arg His Glu  
290 295 300

Lys Lys Asn Lys Ser Pro Asp Ile Lys Lys Val His Gln Leu Leu Gln  
305 310 315 320

Glu Met Thr Ala Ser  
325

<210> 144

<211> 402

<212> PRT

<213> Homo sapiens

<400> 144

Pro Ser Pro Ala Ser Leu Trp Pro Pro Pro Pro Ser Pro Ala Pro Ser  
1 5 10 15

Ser Thr Lys Pro Gly Pro Glu Ser Ser Val Ser Leu Leu Gln Gly Ala  
20 25 30

Arg Pro Ser Pro Phe Cys Trp Pro Leu Cys Glu Ile Ser Arg Gly Thr  
35 40 45

His Asn Phe Ser Glu Glu Leu Lys Ile Gly Glu Gly Gly Phe Gly Cys  
50 55 60

Val Tyr Arg Ala Val Met Arg Asn Thr Val Tyr Ala Val Lys Arg Leu  
65 70 75 80

Lys Glu Asn Ala Asp Leu Glu Trp Thr Ala Val Lys Gln Ser Phe Leu  
85 90 95

Thr Glu Val Glu Gln Leu Ser Arg Phe Arg His Pro Asn Ile Val Asp  
100 105 110

Phe Ala Gly Tyr Cys Ala Gln Asn Gly Phe Tyr Cys Leu Val Tyr Gly  
115 120 125

Phe Leu Pro Asn Gly Ser Leu Glu Asp Arg Leu His Cys Gln Thr Gln  
130 135 140

Ala Cys Pro Pro Leu Ser Trp Pro Gln Arg Leu Asp Ile Leu Leu Gly  
145 150 155 160

Thr Ala Arg Ala Ile Gln Phe Leu His Gln Asp Ser Pro Ser Leu Ile  
165 170 175

His Gly Asp Ile Lys Ser Ser Asn Val Leu Leu Asp Glu Arg Leu Thr  
 180 185 190  
 Pro Lys Leu Gly Asp Phe Gly Leu Ala Arg Phe Ser Arg Phe Ala Gly  
 195 200 205  
 Ser Ser Pro Ser Gln Ser Ser Met Val Ala Arg Thr Gln Thr Val Arg  
 210 215 220  
 Gly Thr Leu Ala Tyr Leu Pro Glu Glu Tyr Ile Lys Thr Gly Arg Leu  
 225 230 235 240  
 Ala Val Asp Thr Asp Thr Phe Ser Phe Gly Val Val Val Leu Glu Thr  
 245 250 255  
 Leu Ala Gly Gln Arg Ala Val Lys Thr His Gly Ala Arg Thr Lys Tyr  
 260 265 270  
 Leu Lys Asp Leu Val Glu Glu Glu Ala Glu Glu Ala Gly Val Ala Leu  
 275 280 285  
 Arg Ser Thr Gln Ser Thr Leu Gln Ala Gly Leu Ala Ala Asp Ala Trp  
 290 295 300  
 Ala Ala Pro Ile Ala Met Gln Ile Tyr Lys Lys His Leu Asp Pro Arg  
 305 310 315 320  
 Pro Gly Pro Cys Pro Pro Glu Leu Gly Leu Gly Leu Gly Gln Leu Ala  
 325 330 335  
 Cys Cys Cys Leu His Arg Arg Ala Lys Arg Arg Pro Pro Met Thr Gln  
 340 345 350  
 Val Tyr Glu Arg Leu Glu Lys Leu Gln Ala Val Val Ala Gly Val Pro  
 355 360 365  
 Gly His Leu Glu Ala Ala Ser Cys Ile Pro Pro Ser Pro Gln Glu Asn  
 370 375 380  
 Ser Tyr Val Ser Ser Thr Gly Arg Ala His Ser Gly Ala Ala Pro Trp  
 385 390 395 400  
 Gln Pro

&lt;210&gt; 145

&lt;211&gt; 329

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 145

Met Glu Arg Pro Pro Gly Leu Arg Pro Gly Ala Gly Gly Pro Trp Glu  
 1 5 10 15

Met Arg Glu Arg Leu Gly Thr Gly Gly Phe Gly Asn Val Cys Leu Tyr  
 20 25 30

Gln His Arg Glu Leu Asp Leu Lys Ile Ala Ile Lys Ser Cys Arg Leu  
                   35                                  40                                  45

Glu Leu Ser Thr Lys Asn Arg Glu Arg Trp Cys His Glu Ile Gln Ile  
                   50                                  55                                  60

Met Lys Lys Leu Asn His Ala Asn Val Val Lys Ala Cys Asp Val Pro  
       65  70                                  75                                  80

Glu Glu Leu Asn Ile Leu Ile His Asp Val Pro Leu Leu Ala Met Glu  
                                   85                                  90                                  95

Tyr Cys Ser Gly Gly Asp Leu Arg Lys Leu Leu Asn Lys Pro Glu Asn  
                                   100                                  105                                  110

Cys Cys Gly Leu Lys Glu Ser Gln Ile Leu Ser Leu Leu Ser Asp Ile  
                                   115                                  120                                  125

Gly Ser Gly Ile Arg Tyr Leu His Glu Asn Lys Ile Ile His Arg Asp  
                                   130                                  135                                  140

Leu Lys Pro Glu Asn Ile Val Leu Gln Asp Val Gly Gly Lys Ile Ile  
       145                                  150                                  155                                  160

His Lys Ile Ile Asp Leu Gly Tyr Ala Lys Asp Val Asp Gln Gly Ser  
                                   165                                  170                                  175

Leu Cys Thr Ser Phe Val Gly Thr Leu Gln Tyr Leu Ala Pro Glu Leu  
                                   180                                  185                                  190

Phe Glu Asn Lys Pro Tyr Thr Ala Thr Val Asp Tyr Trp Ser Phe Gly  
                                   195                                  200                                  205

Thr Met Val Phe Glu Cys Ile Ala Gly Tyr Arg Pro Phe Leu His His  
       210                                  215                                  220

Leu Gln Pro Phe Thr Trp His Glu Lys Ile Lys Lys Lys Asp Pro Lys  
       225                                  230                                  235                                  240

Cys Ile Phe Ala Cys Glu Glu Met Ser Gly Glu Val Arg Phe Ser Ser  
                                   245                                  250                                  255

His Leu Pro Gln Pro Asn Ser Leu Cys Ser Leu Ile Val Glu Pro Met  
                                   260                                  265                                  270

Glu Asn Trp Leu Gln Leu Met Leu Asn Trp Asp Pro Gln Gln Arg Gly  
                                   275                                  280                                  285

Gly Pro Val Asp Leu Thr Leu Lys Gln Pro Arg Cys Phe Val Leu Met  
       290                                  295                                  300

Asp His Ile Leu Asn Leu Lys Ile Val His Ile Leu Asn Met Thr Ser  
       305                                  310                                  315                                  320

Ala Lys Ile Ile Ser Phe Leu Leu Pro  
                                   325

<210> 146  
 <211> 347  
 <212> PRT  
 <213> Homo sapiens

<400> 146

Met	Gln	Ser	Thr	Ala	Asn	Tyr	Leu	Trp	His	Thr	Asp	Asp	Leu	Leu	Gly
1				5					10					15	
Gln	Gly	Ala	Thr	Ala	Ser	Val	Tyr	Lys	Ala	Arg	Asn	Lys	Lys	Ser	Gly
			20					25					30		
Glu	Leu	Val	Ala	Val	Lys	Val	Phe	Asn	Thr	Thr	Ser	Tyr	Leu	Arg	Pro
		35					40					45			
Arg	Glu	Val	Gln	Val	Arg	Glu	Phe	Glu	Val	Leu	Arg	Lys	Leu	Asn	His
		50				55					60				
Gln	Asn	Ile	Val	Lys	Leu	Phe	Ala	Val	Glu	Glu	Thr	Gly	Gly	Ser	Arg
65					70					75					80
Gln	Lys	Val	Leu	Val	Met	Glu	Tyr	Cys	Ser	Ser	Gly	Ser	Leu	Leu	Ser
				85					90					95	
Val	Leu	Glu	Ser	Pro	Glu	Asn	Ala	Phe	Gly	Leu	Pro	Glu	Asp	Glu	Phe
			100					105					110		
Leu	Val	Val	Leu	Arg	Cys	Val	Val	Ala	Gly	Met	Asn	His	Leu	Arg	Glu
		115					120					125			
Asn	Gly	Ile	Val	His	Arg	Asp	Ile	Lys	Pro	Gly	Asn	Ile	Met	Arg	Leu
	130					135					140				
Val	Gly	Glu	Glu	Gly	Gln	Ser	Ile	Tyr	Lys	Leu	Thr	Asp	Phe	Gly	Ala
145					150					155					160
Ala	Arg	Glu	Leu	Asp	Asp	Asp	Glu	Lys	Phe	Val	Ser	Val	Tyr	Gly	Thr
				165					170					175	
Glu	Glu	Tyr	Leu	His	Pro	Asp	Met	Tyr	Glu	Arg	Ala	Val	Leu	Arg	Lys
			180					185					190		
Pro	Gln	Gln	Lys	Ala	Phe	Gly	Val	Thr	Val	Asp	Leu	Trp	Ser	Ile	Gly
		195					200					205			
Val	Thr	Leu	Tyr	His	Ala	Ala	Thr	Gly	Ser	Leu	Pro	Phe	Ile	Pro	Phe
	210					215					220				
Gly	Gly	Pro	Arg	Arg	Asn	Lys	Glu	Ile	Met	Tyr	Arg	Ile	Thr	Thr	Glu
225					230					235					240
Lys	Pro	Ala	Gly	Ala	Ile	Ala	Gly	Ala	Gln	Arg	Arg	Glu	Asn	Gly	Pro
				245					250					255	
Leu	Glu	Trp	Ser	Tyr	Thr	Leu	Pro	Ile	Thr	Cys	Gln	Leu	Ser	Leu	Gly
			260					265					270		

Leu Gln Ser Gln Leu Val Pro Ile Leu Ala Asn Ile Leu Glu Val Glu  
 275 280 285

Gln Ala Lys Cys Trp Gly Phe Asp Gln Phe Phe Ala Glu Thr Ser Asp  
 290 295 300

Ile Leu Gln Arg Val Val Val His Val Phe Ser Leu Ser Gln Ala Val  
 305 310 315 320

Leu His His Ile Tyr Ile His Ala His Asn Thr Ile Ala Ile Phe Gln  
 325 330 335

Glu Ala Val His Lys Gln Thr Ser Val Ala Pro  
 340 345

<210> 147

<211> 373

<212> PRT

<213> Homo sapiens

<400> 147

Ile Asp Phe Thr Pro Pro Ala Glu Asp Thr Pro Ser Val Gln Ser Pro  
 1 5 10 15

Ala Glu Val Phe Thr Leu Ser Val Pro Asn Ile Ser Leu Pro Ala Pro  
 20 25 30

Ser Gln Phe Gln Pro Ser Val Glu Gly Leu Lys Ser Gln Val Ala Arg  
 35 40 45

His Ser Leu Asn Tyr Ile Gln Glu Ile Gly Asn Gly Trp Phe Gly Lys  
 50 55 60

Val Leu Leu Gly Glu Ile Tyr Thr Gly Thr Ser Val Ala Arg Val Ile  
 65 70 75 80

Val Lys Glu Leu Lys Ala Ser Ala Asn Pro Lys Glu Gln Asp Thr Phe  
 85 90 95

Leu Lys Asn Gly Glu Pro Tyr Tyr Ile Leu Gln His Pro Asn Ile Leu  
 100 105 110

Gln Cys Val Gly Gln Cys Val Glu Ala Ile Pro Tyr Leu Leu Val Phe  
 115 120 125

Glu Phe Cys Asp Leu Gly Asp Leu Lys Ala Tyr Leu Arg Ser Glu Gln  
 130 135 140

Glu His Met Arg Gly Asp Ser Gln Thr Met Leu Leu Gln Arg Met Ala  
 145 150 155 160

Cys Glu Val Ala Ala Gly Leu Ala Ala Met His Lys Leu His Phe Leu  
 165 170 175

His Ser Asp Leu Ala Leu Arg Asn Cys Phe Leu Thr Ser Asp Leu Asn  
 180 185 190



185

Val Lys Val Gly Asp Tyr Gly Ile Gly Phe Ser Arg Tyr Lys Glu Asp  
195 200 205

Tyr Ile Glu Thr Asp Asp Lys Lys Val Phe Pro Leu Arg Trp Thr Ala  
210 215 220

Pro Glu Leu Val Thr Ser Phe Gln Asp Arg Leu Leu Thr Ala Asp Gln  
225 230 235 240

Thr Lys Tyr Ser Asn Ile Trp Ser Leu Gly Val Thr Leu Trp Glu Leu  
245 250 255

Phe Asp Asn Ala Ala Gln Pro Tyr Ser Asn Leu Ser Asn Leu Asp Val  
260 265 270

Leu Asn Gln Val Ile Arg Glu Arg Asp Thr Lys Leu Pro Lys Pro Gln  
275 280 285

Leu Glu Gln Pro Tyr Ser Asp Arg Trp Tyr Glu Val Leu Gln Phe Cys  
290 295 300

Trp Leu Ser Pro Glu Lys Arg Pro Ala Ala Glu Asp Val His Arg Leu  
305 310 315 320

Leu Thr Tyr Leu Arg Leu Gln Ser Gln Arg Asp Ser Glu Val Asp Phe  
325 330 335

Glu Gln Gln Trp Asn Ala Leu Lys Pro Asn Thr Asn Ser Arg Asp Ser  
340 345 350

Ser Asn Asn Ala Ala Phe Pro Ile Leu Asp His Phe Ala Arg Asp Arg  
355 360 365

Leu Gly Arg Glu Met  
370

<210> 148  
<211> 321  
<212> PRT  
<213> Homo sapiens

<400> 148  
Met Pro Ser Arg Ala Glu Asp Tyr Glu Val Leu Tyr Thr Ile Gly Thr  
1 5 10 15

Gly Ser Tyr Gly Arg Cys Gln Lys Ile Arg Arg Lys Ser Asp Gly Lys  
20 25 30

Ile Leu Val Trp Lys Glu Leu Asp Tyr Gly Ser Met Thr Glu Ala Glu  
35 40 45

Lys Gln Met Leu Val Ser Glu Val Asn Leu Leu Arg Glu Leu Lys His  
50 55 60

Pro Asn Ile Val Arg Tyr Tyr Asp Arg Ile Ile Asp Arg Thr Asn Thr  
65 70 75 80

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<210> 149
<211> 335
<212> PRT
<213> Homo sapiens
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<400> 149  
Ser Asn Ser Asp Ser Leu Asn Ser Ser Ser Leu Leu Met Asn Gly Leu  
1 5 10 15

Arg	Asn	Asn	Gln	Arg	Lys	Ala	Lys	Arg	Ser	Leu	Ala	Pro	Arg	Phe	Asp	
			20					25					30			
Leu	Pro	Asp	Met	Lys	Glu	Thr	Lys	Tyr	Thr	Val	Asp	Lys	Arg	Phe	Gly	
			35					40					45			
Met	Asp	Phe	Lys	Glu	Ile	Glu	Leu	Ile	Gly	Ser	Gly	Gly	Phe	Gly	Gln	
			50					55					60			
Val	Phe	Lys	Ala	Lys	His	Arg	Ile	Asp	Gly	Lys	Thr	Tyr	Val	Ile	Lys	
			65					70					75		80	
Arg	Val	Lys	Tyr	Asn	Asn	Glu	Lys	Ala	Glu	Arg	Glu	Val	Lys	Ala	Leu	
			85					90					95			
Ala	Lys	Leu	Asp	His	Val	Asn	Ile	Val	His	Tyr	Asn	Gly	Cys	Trp	Asp	
			100					105					110			
Gly	Phe	Asp	Tyr	Asp	Pro	Glu	Thr	Ser	Asp	Asp	Ser	Leu	Glu	Ser	Ser	
			115					120					125			
Asp	Tyr	Asp	Pro	Glu	Asn	Ser	Lys	Asn	Ser	Ser	Arg	Ser	Lys	Thr	Lys	
			130					135					140			
Cys	Leu	Phe	Ile	Gln	Met	Glu	Phe	Cys	Asp	Lys	Gly	Thr	Leu	Glu	Gln	
			145					150					155		160	
Trp	Ile	Glu	Lys	Arg	Arg	Gly	Glu	Lys	Leu	Asp	Lys	Val	Leu	Ala	Leu	
			165					170					175			
Glu	Leu	Phe	Glu	Gln	Ile	Thr	Lys	Gly	Val	Asp	Tyr	Ile	His	Ser	Lys	
			180					185					190			
Lys	Leu	Ile	His	Arg	Asp	Leu	Lys	Pro	Ser	Asn	Ile	Phe	Leu	Val	Asp	
			195					200					205			
Thr	Lys	Gln	Val	Lys	Ile	Gly	Asp	Phe	Gly	Leu	Val	Thr	Ser	Leu	Lys	
			210					215					220			
Asn	Asp	Gly	Lys	Arg	Thr	Arg	Ser	Lys	Gly	Thr	Leu	Arg	Tyr	Met	Ser	
			225					230					235		240	
Pro	Glu	Gln	Ile	Ser	Ser	Gln	Asp	Tyr	Gly	Lys	Glu	Val	Asp	Leu	Tyr	
			245					250					255			
Ala	Leu	Gly	Leu	Ile	Leu	Ala	Glu	Leu	Leu	His	Val	Cys	Asp	Thr	Ala	
			260					265					270			
Phe	Glu	Thr	Ser	Lys	Phe	Phe	Thr	Asp	Leu	Arg	Asp	Gly	Ile	Ile	Ser	
			275					280					285			
Asp	Ile	Phe	Asp	Lys	Lys	Glu	Lys	Thr	Leu	Leu	Gln	Lys	Leu	Leu	Ser	
			290					295					300			
Lys	Lys	Pro	Glu	Asp	Arg	Pro	Asn	Thr	Ser	Glu	Ile	Leu	Arg	Thr	Leu	
			305					310					315		320	

Thr Val Trp Lys Lys Ser Pro Glu Lys Asn Glu Arg His Thr Cys  
                   325                  330                  335

<210> 150

<211> 313

<212> PRT

<213> Homo sapiens

<400> 150

Met Leu Leu Ser Lys Ile Asn Ser Leu Ala His Leu Arg Ala Ala Pro  
   1                  5                  10                  15

Cys Asn Asp Leu His Ala Thr Lys Leu Ala Pro Gly Lys Glu Lys Glu  
                   20                  25                  30

Pro Leu Glu Ser Gln Tyr Gln Val Gly Pro Leu Leu Gly Ser Gly Gly  
                   35                  40                  45

Phe Gly Ser Val Tyr Ser Gly Ile Arg Val Ser Asp Asn Leu Pro Val  
                   50                  55                  60

Ala Ile Lys His Val Glu Lys Asp Arg Ile Ser Asp Trp Gly Glu Leu  
   65                  70                  75                  80

Pro Asn Gly Thr Arg Val Pro Met Glu Val Val Leu Leu Lys Lys Val  
                   85                  90                  95

Ser Ser Gly Phe Ser Gly Val Ile Arg Leu Leu Asp Trp Phe Glu Arg  
                   100                  105                  110

Pro Asp Ser Phe Val Leu Ile Leu Glu Arg Pro Glu Pro Val Gln Asp  
                   115                  120                  125

Leu Phe Asp Phe Ile Thr Glu Arg Gly Ala Leu Gln Glu Glu Leu Ala  
   130                  135                  140

Arg Ser Phe Phe Trp Gln Val Leu Glu Ala Val Arg His Cys His Asn  
  145                  150                  155                  160

Cys Gly Val Leu His Arg Asp Ile Lys Asp Glu Asn Ile Leu Ile Asp  
                   165                  170                  175

Leu Asn Arg Gly Glu Leu Lys Leu Ile Asp Phe Gly Ser Gly Ala Leu  
                   180                  185                  190

Leu Lys Asp Thr Val Tyr Thr Asp Phe Asp Gly Thr Arg Val Tyr Ser  
                   195                  200                  205

Pro Pro Glu Trp Ile Arg Tyr His Arg Tyr His Gly Arg Ser Ala Ala  
   210                  215                  220

Val Trp Ser Leu Gly Ile Leu Leu Tyr Asp Met Val Cys Gly Asp Ile  
  225                  230                  235                  240

Pro Phe Glu His Asp Glu Glu Ile Ile Arg Gly Gln Val Phe Phe Arg  
                   245                  250                  255

Gln Arg Val Ser Ser Glu Cys Gln His Leu Ile Arg Trp Cys Leu Ala  
                   260                                  265                                  270

Leu Arg Pro Ser Asp Arg Pro Thr Phe Glu Glu Ile Gln Asn His Pro  
                   275                                  280                                  285

Trp Met Gln Asp Val Leu Leu Pro Gln Glu Thr Ala Glu Ile His Leu  
                   290                                  295                                  300

His Ser Leu Ser Pro Gly Pro Ser Lys  
                   305                                  310

<210> 151

<211> 361

<212> PRT

<213> Homo sapiens

<400> 151

Arg Leu Gly His Leu Lys Lys Glu Glu Ala Glu Ile Gln Ala Glu Leu  
                   1                                  5                                  10                                  15

Glu Arg Leu Glu Arg Val Arg Asn Leu His Ile Arg Glu Leu Lys Arg  
                   20                                  25                                  30

Ile Asn Asn Glu Asp Asn Ser Gln Phe Lys Asp His Pro Thr Leu Asn  
                   35                                  40                                  45

Glu Arg Tyr Leu Leu Leu His Leu Leu Gly Arg Gly Gly Phe Ser Glu  
                   50                                  55                                  60

Val Tyr Lys Ala Phe Asp Leu Tyr Glu Gln Arg Tyr Ala Ala Val Lys  
                   65                                  70                                  75                                  80

Ile His Gln Leu Asn Lys Ser Trp Arg Asp Glu Lys Lys Glu Asn Tyr  
                   85                                  90                                  95

His Lys His Ala Cys Arg Glu Tyr Arg Ile His Lys Glu Leu Asp His  
                   100                                  105                                  110

Pro Arg Ile Val Lys Leu Tyr Asp Tyr Phe Ser Leu Asp Thr Asp Thr  
                   115                                  120                                  125

Phe Cys Thr Val Leu Glu Tyr Cys Glu Gly Asn Asp Leu Asp Phe Tyr  
                   130                                  135                                  140

Leu Lys Gln His Lys Leu Met Ser Glu Lys Glu Ala Arg Ser Ile Val  
                   145                                  150                                  155                                  160

Met Gln Ile Val Asn Ala Leu Arg Tyr Leu Asn Glu Ile Lys Pro Pro  
                   165                                  170                                  175

Ile Ile His Tyr Asp Leu Lys Pro Gly Asn Ile Leu Leu Val Asp Gly  
                   180                                  185                                  190

Thr Ala Cys Gly Glu Ile Lys Ile Thr Asp Phe Gly Leu Ser Lys Ile  
                   195                                  200                                  205

190

Met Asp Asp Asp Ser Tyr Gly Val Asp Gly Met Asp Leu Thr Ser Gln  
210 215 220

Gly Ala Gly Thr Tyr Trp Tyr Leu Pro Pro Glu Cys Phe Val Val Gly  
225 230 235 240

Lys Glu Pro Pro Lys Ile Ser Asn Lys Val Asp Val Trp Ser Val Gly  
245 250 255

Val Ile Phe Phe Gln Cys Leu Tyr Gly Arg Lys Pro Phe Gly His Asn  
260 265 270

Gln Ser Gln Gln Asp Ile Leu Gln Glu Asn Thr Ile Leu Lys Ala Thr  
275 280 285

Glu Val Gln Phe Pro Val Lys Pro Val Val Ser Ser Glu Ala Lys Ala  
290 295 300

Phe Ile Arg Arg Cys Leu Ala Tyr Arg Lys Glu Asp Arg Phe Asp Val  
305 310 315 320

His Gln Leu Ala Asn Asp Pro Tyr Leu Leu Pro His Met Arg Arg Ser  
325 330 335

Asn Ser Ser Gly Asn Leu His Met Ala Gly Leu Thr Ala Ser Pro Thr  
340 345 350

Pro Pro Ser Ser Ile Ile Thr Tyr  
355 360

<210> 152

<211> 359

<212> PRT

<213> Homo sapiens

<400> 152

Leu Val Gly Ser Lys Glu Glu Pro Pro Pro Ala Arg Ser Gly Ser Gly  
1 5 10 15

Gly Gly Ser Ala Lys Glu Pro Gln Glu Glu Arg Ser Gln Gln Gln Asp  
20 25 30

Asp Ile Glu Glu Leu Glu Thr Lys Ala Val Gly Met Ser Asn Asp Gly  
35 40 45

Arg Phe Leu Lys Phe Asp Ile Glu Ile Gly Arg Gly Ser Phe Lys Thr  
50 55 60

Val Tyr Lys Gly Leu Asp Thr Glu Thr Thr Val Glu Val Ala Trp Cys  
65 70 75 80

Glu Leu Gln Asp Arg Lys Leu Thr Lys Ser Glu Arg Gln Arg Phe Lys  
85 90 95

Glu Glu Ala Glu Met Leu Lys Gly Leu Gln His Pro Asn Ile Val Arg  
100 105 110

191

Phe Tyr Asp Ser Trp Glu Ser Thr Val Lys Gly Lys Lys Cys Ile Val  
115 120 125

Leu Val Thr Glu Leu Met Thr Ser Gly Thr Leu Lys Thr Tyr Leu Lys  
130 135 140

Arg Phe Lys Val Met Lys Ile Lys Val Leu Arg Ser Trp Cys Arg Gln  
145 150 155 160

Ile Leu Lys Gly Leu Gln Phe Leu His Thr Arg Thr Pro Pro Ile Ile  
165 170 175

His Arg Asp Leu Lys Cys Asp Asn Ile Phe Ile Thr Gly Pro Thr Gly  
180 185 190

Ser Val Lys Ile Gly Asp Leu Gly Leu Ala Thr Leu Lys Arg Ala Ser  
195 200 205

Phe Ala Lys Ser Val Ile Gly Thr Pro Glu Phe Met Ala Pro Glu Met  
210 215 220

Tyr Glu Glu Lys Tyr Asp Glu Ser Val Asp Val Tyr Ala Phe Gly Met  
225 230 235 240

Cys Met Leu Glu Met Ala Thr Ser Glu Tyr Pro Tyr Ser Glu Cys Gln  
245 250 255

Asn Ala Ala Gln Ile Tyr Arg Arg Val Thr Ser Gly Val Lys Pro Ala  
260 265 270

Ser Phe Asp Lys Val Ala Ile Pro Glu Val Lys Glu Ile Ile Glu Gly  
275 280 285

Cys Ile Arg Gln Asn Lys Asp Glu Arg Tyr Ser Ile Lys Asp Leu Leu  
290 295 300

Asn His Ala Phe Phe Gln Glu Glu Thr Gly Val Arg Val Glu Leu Ala  
305 310 315 320

Glu Glu Asp Asp Gly Glu Lys Ile Ala Ile Lys Leu Trp Leu Arg Ile  
325 330 335

Glu Asp Ile Lys Lys Leu Lys Gly Lys Tyr Lys Asp Asn Glu Ala Ile  
340 345 350

Glu Phe Ser Phe Asp Leu Glu  
355

<210> 153

<211> 350

<212> PRT

<213> Homo sapiens

<400> 153

Ser Ile Pro Ile Ser Arg Leu Phe Pro Pro Arg Thr Pro Gly Trp His  
1 5 10 15

Gln	Leu	Gln	Pro	Arg	Arg	Val	Ser	Phe	Arg	Gly	Glu	Ala	Ser	Glu	Thr	20	25	30	
Leu	Gln	Ser	Pro	Gly	Tyr	Asp	Pro	Ser	Arg	Pro	Glu	Ser	Phe	Phe	Gln	35	40	45	
Gln	Ser	Phe	Gln	Arg	Leu	Ser	Arg	Leu	Gly	His	Gly	Ser	Tyr	Gly	Glu	50	55	60	
Val	Phe	Lys	Val	Arg	Ser	Lys	Glu	Asp	Gly	Arg	Leu	Tyr	Ala	Val	Lys	65	70	75	80
Arg	Ser	Met	Ser	Pro	Phe	Arg	Gly	Pro	Lys	Asp	Arg	Ala	Arg	Lys	Leu	85	90	95	
Ala	Glu	Val	Gly	Ser	His	Glu	Lys	Val	Gly	Gln	His	Pro	Cys	Cys	Val	100	105	110	
Arg	Leu	Glu	Gln	Ala	Trp	Glu	Glu	Gly	Gly	Ile	Leu	Tyr	Leu	Gln	Thr	115	120	125	
Glu	Leu	Cys	Gly	Pro	Ser	Leu	Gln	Gln	His	Cys	Glu	Ala	Trp	Gly	Ala	130	135	140	
Ser	Leu	Pro	Glu	Ala	Gln	Val	Trp	Gly	Tyr	Leu	Arg	Asp	Thr	Leu	Leu	145	150	155	160
Ala	Leu	Ala	His	Leu	His	Ser	Gln	Gly	Leu	Val	His	Leu	Asp	Val	Lys	165	170	175	
Pro	Ala	Asn	Ile	Phe	Leu	Gly	Pro	Arg	Gly	Arg	Cys	Lys	Leu	Gly	Asp	180	185	190	
Phe	Gly	Leu	Leu	Val	Glu	Leu	Gly	Thr	Ala	Gly	Ala	Gly	Glu	Val	Gln	195	200	205	
Glu	Gly	Asp	Pro	Arg	Tyr	Met	Ala	Pro	Glu	Leu	Leu	Gln	Gly	Ser	Tyr	210	215	220	
Gly	Thr	Ala	Ala	Asp	Val	Phe	Ser	Leu	Gly	Leu	Thr	Ile	Leu	Glu	Val	225	230	235	240
Ala	Cys	Asn	Met	Glu	Leu	Pro	His	Gly	Gly	Glu	Gly	Trp	Gln	Gln	Leu	245	250	255	
Arg	Gln	Gly	Tyr	Leu	Pro	Pro	Glu	Phe	Thr	Ala	Gly	Leu	Ser	Ser	Glu	260	265	270	
Leu	Arg	Ser	Val	Leu	Val	Met	Met	Leu	Glu	Pro	Asp	Pro	Lys	Leu	Arg	275	280	285	
Ala	Thr	Ala	Glu	Ala	Leu	Leu	Ala	Leu	Pro	Val	Leu	Arg	Gln	Pro	Arg	290	295	300	
Ala	Trp	Gly	Val	Leu	Trp	Cys	Met	Ala	Ala	Glu	Ala	Leu	Ser	Arg	Gly	305	310	315	320



Trp Ala Leu Trp Gln Ala Leu Leu Ala Leu Leu Cys Trp Leu Trp His  
                                   325                                  330                                  335

Gly Leu Ala His Pro Ala Ser Trp Leu Gln Pro Leu Gly Pro  
                                   340                                  345                                  350

<210> 154

<211> 371

<212> PRT

<213> Homo sapiens

<400> 154

Gly Gln Cys Arg Arg Arg Lys Arg Thr Tyr Trp Asn Asp Ser Cys Gly  
   1                                  5                                  10                                  15

Glu Asp Met Glu Ala Ser Asp Tyr Glu Leu Glu Asp Glu Thr Arg Pro  
                                   20                                  25                                  30

Ala Lys Arg Ile Thr Ile Thr Glu Ser Asn Met Lys Ser Arg Tyr Thr  
                                   35                                  40                                  45

Thr Glu Phe His Glu Leu Glu Lys Ile Gly Ser Gly Glu Phe Gly Ser  
                                   50                                  55                                  60

Val Phe Lys Cys Val Lys Arg Leu Asp Gly Cys Ile Tyr Ala Ile Lys  
   65                                  70                                  75                                  80

Arg Ser Lys Lys Pro Leu Ala Gly Ser Val Asp Glu Gln Asn Ala Leu  
                                   85                                  90                                  95

Arg Glu Val Tyr Ala His Ala Val Leu Gly Gln His Ser His Val Val  
                                   100                                  105                                  110

Arg Tyr Phe Ser Ala Trp Ala Glu Asp Asp His Met Leu Ile Gln Asn  
                                   115                                  120                                  125

Glu Tyr Cys Asn Gly Gly Ser Leu Ala Asp Ala Ile Ser Glu Asn Tyr  
                                   130                                  135                                  140

Arg Ile Met Ser Tyr Phe Lys Glu Ala Glu Leu Lys Asp Leu Leu Leu  
   145                                  150                                  155                                  160

Gln Val Gly Arg Gly Leu Arg Tyr Ile His Ser Met Ser Leu Val His  
                                   165                                  170                                  175

Met Asp Ile Lys Pro Ser Asn Ile Phe Ile Ser Arg Thr Ser Ile Pro  
                                   180                                  185                                  190

Asn Ala Ala Ser Glu Glu Gly Asp Glu Asp Asp Trp Ala Ser Asn Lys  
                                   195                                  200                                  205

Val Met Phe Lys Ile Gly Asp Leu Gly His Val Thr Arg Ile Ser Ser  
                                   210                                  215                                  220

Pro Gln Val Glu Glu Gly Asp Ser Arg Phe Leu Ala Asn Glu Val Leu  
   225                                  230                                  235                                  240

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<210> 155
<211> 351
<212> PRT
<213> Homo sapiens
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<400> 155																
Ala	Asn	His	Ile	Ser	Asn	Thr	Ala	Lys	His	Phe	Tyr	Gly	Gln	Arg	Pro	
1				5					10					15		
Gln Glu Ser Gly Ile Leu Leu Asn Met Val Ile Thr Pro Gln Asn Gly																
			20					25					30			
Arg Tyr Gln Ile Asp Ser Asp Val Leu Leu Ile Pro Trp Lys Leu Thr																
		35					40					45				
Tyr Arg Asn Ile Gly Ser Asp Phe Ile Pro Arg Gly Ala Phe Gly Lys																
	50					55					60					
Val Tyr Leu Ala Gln Asp Ile Lys Thr Lys Lys Arg Met Ala Cys Lys																
65					70					75						80
Leu Ile Pro Val Asp Gln Phe Lys Pro Ser Asp Val Glu Ile Gln Ala																
				85				90						95		
Cys Phe Arg His Glu Asn Ile Ala Glu Leu Tyr Gly Ala Val Leu Trp																
			100					105					110			
Gly Glu Thr Val His Leu Phe Met Glu Ala Gly Glu Gly Gly Ser Val																
		115					120					125				

195

Leu Glu Lys Leu Glu Ser Cys Gly Pro Met Arg Glu Phe Glu Ile Ile  
130 135 140

Trp Val Thr Lys His Val Leu Lys Gly Leu Asp Phe Leu His Ser Lys  
145 150 155 160

Lys Val Ile His His Asp Ile Lys Pro Ser Asn Ile Val Phe Met Ser  
165 170 175

Thr Lys Ala Val Leu Val Asp Phe Gly Leu Ser Val Gln Met Thr Glu  
180 185 190

Asp Val Tyr Phe Pro Lys Asp Leu Arg Gly Thr Glu Ile Tyr Met Ser  
195 200 205

Pro Glu Val Ile Leu Cys Arg Gly His Ser Thr Lys Ala Asp Ile Tyr  
210 215 220

Ser Leu Gly Ala Thr Leu Ile His Met Gln Thr Gly Thr Pro Pro Trp  
225 230 235 240

Val Lys Arg Tyr Pro Arg Ser Ala Tyr Pro Ser Tyr Leu Tyr Ile Ile  
245 250 255

His Lys Gln Ala Pro Pro Leu Glu Asp Ile Ala Asp Asp Cys Ser Pro  
260 265 270

Gly Met Arg Glu Leu Ile Glu Ala Ser Leu Glu Arg Asn Pro Asn His  
275 280 285

Arg Pro Arg Ala Ala Asp Leu Leu Lys His Glu Ala Leu Asn Pro Pro  
290 295 300

Arg Glu Asp Gln Pro Arg Cys Gln Ser Leu Asp Ser Ala Leu Leu Glu  
305 310 315 320

Arg Lys Arg Leu Leu Ser Arg Lys Glu Leu Glu Leu Pro Glu Asn Ile  
325 330 335

Ala Asp Ser Ser Cys Thr Gly Ser Thr Glu Glu Ser Glu Met Leu  
340 345 350

<210> 156

<211> 343

<212> PRT

<213> Homo sapiens

<400> 156

Thr Asp Asn Ile Ser Phe Met Leu Lys Arg Cys Cys Gln Pro Lys Pro  
1 5 10 15

Arg Glu Ile Ser Asn Leu Leu Val Ala Thr Lys Lys Ala Gln Glu Trp  
20 25 30

Gln Pro Val Tyr Pro Met Ser Gln Leu Ser Phe Asp Arg Ile Leu Lys  
35 40 45

Lys Asp Leu Val Gln Gly Glu His Leu Gly Arg Gly Thr Arg Thr His  
 50 55 60  
 Ile Tyr Ser Gly Thr Leu Met Asp Tyr Lys Asp Asp Glu Gly Thr Ser  
 65 70 75 80  
 Glu Glu Lys Lys Ile Lys Val Ile Leu Lys Val Leu Asp Pro Ser His  
 85 90 95  
 Arg Asp Ile Ser Leu Ala Phe Phe Glu Ala Ala Ser Met Met Arg Gln  
 100 105 110  
 Val Ser His Lys His Ile Val Tyr Leu Tyr Gly Val Cys Val Arg Asp  
 115 120 125  
 Val Glu Asn Ile Met Val Glu Glu Phe Val Glu Gly Gly Pro Leu Asp  
 130 135 140  
 Leu Phe Met His Arg Lys Ser Asp Val Leu Thr Thr Pro Trp Lys Phe  
 145 150 155 160  
 Lys Val Ala Lys Gln Leu Ala Ser Ala Leu Ser Tyr Leu Glu Asp Lys  
 165 170 175  
 Asp Leu Val His Gly Asn Val Cys Thr Lys Asn Leu Leu Leu Ala Arg  
 180 185 190  
 Glu Gly Ile Asp Ser Glu Cys Gly Pro Phe Ile Lys Leu Ser Asp Pro  
 195 200 205  
 Gly Ile Pro Ile Thr Val Leu Ser Arg Gln Glu Cys Ile Glu Arg Ile  
 210 215 220  
 Pro Trp Ile Ala Pro Glu Cys Val Glu Asp Ser Lys Asn Leu Ser Val  
 225 230 235 240  
 Ala Ala Asp Lys Trp Ser Phe Gly Thr Thr Leu Trp Glu Ile Cys Tyr  
 245 250 255  
 Asn Gly Glu Ile Pro Leu Lys Asp Lys Thr Leu Ile Glu Lys Glu Arg  
 260 265 270  
 Phe Tyr Glu Ser Arg Cys Arg Pro Val Thr Pro Ser Cys Lys Glu Leu  
 275 280 285  
 Ala Asp Leu Met Thr Arg Cys Met Asn Tyr Asp Pro Asn Gln Arg Pro  
 290 295 300  
 Phe Phe Arg Ala Ile Met Arg Asp Ile Asn Lys Leu Glu Glu Gln Asn  
 305 310 315 320  
 Pro Asp Ile Val Ser Arg Lys Lys Asn Gln Pro Thr Glu Val Asp Pro  
 325 330 335  
 Thr His Phe Glu Lys Arg Phe  
 340

<210> 157  
 <211> 367  
 <212> PRT  
 <213> Homo sapiens

<400> 157  
 Phe Pro Pro Ala Cys Gln Leu Ser Thr Pro Tyr Gly Gln Pro Ala Cys  
   1                  5                  10                  15  
 Phe Gln Gln Gln Gln His Gln Ile Leu Ala Thr Pro Leu Gln Asn Leu  
                   20                  25                  30  
 Gln Val Leu Ala Ser Ser Ser Ala Asn Glu Cys Ile Ser Val Lys Gly  
                   35                  40                  45  
 Arg Ile Tyr Ser Ile Leu Lys Gln Ile Gly Ser Gly Gly Ser Ser Lys  
           50                  55                  60  
 Val Phe Gln Val Leu Asn Glu Lys Lys Gln Ile Tyr Ala Ile Lys Tyr  
   65                  70                  75                  80  
 Val Asn Leu Glu Glu Ala Asp Asn Gln Thr Leu Asp Ser Tyr Arg Asn  
                   85                  90                  95  
 Glu Ile Ala Tyr Leu Asn Lys Leu Gln Gln His Ser Asp Lys Ile Ile  
                   100                  105                  110  
 Arg Leu Tyr Asp Tyr Glu Ile Thr Asp Gln Tyr Ile Tyr Met Val Met  
           115                  120                  125  
 Glu Cys Gly Asn Ile Asp Leu Asn Ser Trp Leu Lys Lys Lys Lys Ser  
   130                  135                  140  
 Ile Asp Pro Trp Glu Arg Lys Ser Tyr Trp Lys Asn Met Leu Glu Ala  
   145                  150                  155                  160  
 Val His Thr Ile His Gln His Gly Ile Val His Ser Asp Leu Lys Pro  
                   165                  170                  175  
 Ala Asn Phe Leu Ile Val Asp Gly Met Leu Lys Leu Ile Asp Phe Gly  
                   180                  185                  190  
 Ile Ala Asn Gln Met Gln Pro Asp Thr Thr Ser Val Val Lys Asp Ser  
           195                  200                  205  
 Gln Val Gly Thr Val Asn Tyr Met Pro Pro Glu Ala Ile Lys Asp Met  
   210                  215                  220  
 Ser Ser Ser Arg Glu Asn Gly Lys Ser Lys Ser Lys Ile Ser Pro Lys  
   225                  230                  235                  240  
 Ser Asp Val Trp Ser Leu Gly Cys Ile Leu Tyr Tyr Met Thr Tyr Gly  
                   245                  250                  255  
 Lys Thr Pro Phe Gln Gln Ile Ile Asn Gln Ile Ser Lys Leu His Ala  
                   260                  265                  270

Ile Ile Asp Pro Asn His Glu Ile Glu Phe Pro Asp Ile Pro Glu Lys  
 275 280 285

Asp Leu Gln Asp Val Leu Lys Cys Cys Leu Lys Arg Asp Pro Lys Gln  
 290 295 300

Arg Ile Ser Ile Pro Glu Leu Leu Ala His Pro Tyr Val Gln Ile Gln  
 305 310 315 320

Thr His Pro Val Asn Gln Met Ala Lys Gly Thr Thr Glu Glu Met Lys  
 325 330 335

Tyr Val Leu Gly Gln Leu Val Gly Leu Asn Ser Pro Asn Ser Ile Leu  
 340 345 350

Lys Ala Ala Lys Thr Leu Tyr Glu His Tyr Ser Gly Gly Glu Ser  
 355 360 365

<210> 158

<211> 337

<212> PRT

<213> Homo sapiens

<400> 158

Tyr Leu Arg Ser Glu Phe Ser Pro Ser Val Asp Ala Arg Pro Cys Ser  
 1 5 10 15

Ser Pro Ser Glu Leu Pro Ala Lys Leu Leu Gly Ala Thr Leu Pro  
 20 25 30

Arg Ala Pro Arg Leu Pro Arg Arg Leu Ala Trp Cys Ser Ile Asp Trp  
 35 40 45

Glu Gln Val Cys Leu Leu Gln Arg Leu Gly Ala Gly Gly Phe Gly Ser  
 50 55 60

Val Tyr Lys Ala Thr Tyr Arg Gly Val Pro Val Ala Ile Lys Gln Val  
 65 70 75 80

Asn Lys Cys Thr Lys Asn Arg Leu Ala Ser Arg Arg Ser Phe Trp Ala  
 85 90 95

Glu Leu Asn Val Ala Arg Leu Arg His Asp Asn Ile Val Arg Val Val  
 100 105 110

Ala Ala Ser Thr Arg Thr Pro Ala Gly Ser Asn Ser Leu Gly Thr Ile  
 115 120 125

Ile Met Glu Phe Gly Gly Asn Val Thr Leu His Gln Val Ile Tyr Gly  
 130 135 140

Ala Ala Gly His Pro Glu Gly Asp Ala Gly Glu Pro His Cys Arg Thr  
 145 150 155 160

Gly Gly Gln Leu Ser Leu Gly Lys Cys Leu Lys Tyr Ser Leu Asp Val  
 165 170 175

Val Asn Gly Leu Leu Phe Leu His Ser Gln Ser Ile Val His Leu Asp  
 180 185 190  
 Leu Lys Pro Ala Asn Ile Leu Ile Ser Glu Gln Asp Val Cys Lys Ile  
 195 200 205  
 Ser Asp Phe Gly Cys Ser Glu Lys Leu Glu Asp Leu Leu Cys Phe Gln  
 210 215 220  
 Thr Pro Ser Tyr Pro Leu Gly Gly Thr Tyr Thr His Arg Ala Pro Glu  
 225 230 235 240  
 Leu Leu Lys Gly Glu Gly Val Thr Pro Lys Ala Asp Ile Tyr Ser Phe  
 245 250 255  
 Ala Ile Thr Leu Trp Gln Met Thr Thr Lys Gln Ala Pro Tyr Ser Gly  
 260 265 270  
 Glu Arg Gln His Ile Leu Tyr Ala Val Val Ala Tyr Asp Leu Arg Pro  
 275 280 285  
 Ser Leu Ser Ala Ala Val Phe Glu Asp Ser Leu Pro Gly Gln Arg Leu  
 290 295 300  
 Gly Asp Val Ile Gln Arg Cys Trp Arg Pro Ser Ala Ala Gln Arg Pro  
 305 310 315 320  
 Ser Ala Arg Leu Leu Leu Val Asp Leu Thr Ser Leu Lys Ala Glu Leu  
 325 330 335

Gly

<210> 159  
 <211> 362  
 <212> PRT  
 <213> Homo sapiens

<400> 159  
 Ser Gly Thr Ser Ser Pro Ser Thr Ser Pro Arg Ala Ser Asn His Ser  
 1 5 10 15  
 Leu Cys Ser Gly Ser Ser Ala Ser Lys Ala Gly Ser Ser Pro Ser Leu  
 20 25 30  
 Glu Gln Asp Asp Gly Asp Glu Glu Thr Ser Val Val Ile Val Gly Lys  
 35 40 45  
 Ile Ser Phe Cys Pro Lys Asp Val Leu Gly His Gly Ala Glu Gly Thr  
 50 55 60  
 Ile Val Tyr Arg Gly Met Phe Asp Asn Arg Asp Val Ala Val Lys Arg  
 65 70 75 80  
 Ile Leu Pro Glu Cys Phe Ser Phe Ala Asp Arg Glu Val Gln Leu Leu  
 85 90 95

200

Arg	Glu	Ser	Asp	Glu	His	Pro	Asn	Val	Ile	Arg	Tyr	Phe	Cys	Thr	Glu	100	105	110	
Lys	Asp	Arg	Gln	Phe	Gln	Tyr	Ile	Ala	Ile	Glu	Leu	Cys	Ala	Ala	Thr	115	120	125	
Leu	Gln	Glu	Tyr	Val	Glu	Gln	Lys	Asp	Phe	Ala	His	Leu	Gly	Leu	Glu	130	135	140	
Pro	Ile	Thr	Leu	Leu	Gln	Gln	Thr	Thr	Ser	Gly	Leu	Ala	His	Leu	His	145	150	155	160
Ser	Leu	Asn	Ile	Val	His	Arg	Asp	Leu	Lys	Pro	His	Asn	Ile	Leu	Ile	165	170	175	
Ser	Met	Pro	Asn	Ala	His	Gly	Lys	Ile	Lys	Ala	Met	Ile	Ser	Asp	Phe	180	185	190	
Gly	Leu	Cys	Lys	Lys	Leu	Ala	Val	Gly	Arg	His	Ser	Phe	Ser	Arg	Arg	195	200	205	
Ser	Gly	Val	Pro	Gly	Thr	Glu	Gly	Trp	Ile	Ala	Pro	Glu	Met	Leu	Ser	210	215	220	
Glu	Asp	Cys	Lys	Glu	Asn	Pro	Thr	Tyr	Thr	Val	Asp	Ile	Phe	Ser	Ala	225	230	235	240
Gly	Cys	Val	Phe	Tyr	Tyr	Val	Val	Ser	Glu	Gly	Ser	His	Pro	Phe	Gly	245	250	255	
Lys	Ser	Leu	Gln	Arg	Gln	Ala	Asn	Ile	Leu	Leu	Gly	Ala	Cys	Ser	Leu	260	265	270	
Asp	Cys	Leu	His	Pro	Glu	Lys	His	Glu	Asp	Val	Ile	Ala	Arg	Glu	Leu	275	280	285	
Ile	Glu	Lys	Met	Ile	Ala	Met	Asp	Pro	Gln	Lys	Arg	Pro	Ser	Ala	Asn	290	295	300	
Asp	Val	Leu	Lys	His	Pro	Phe	Phe	Trp	Ser	Leu	Glu	Lys	Gln	Leu	Gln	305	310	315	320
Phe	Phe	Gln	Asp	Val	Ser	Asp	Arg	Ile	Glu	Lys	Glu	Ser	Leu	Asp	Gly	325	330	335	
Pro	Ile	Val	Lys	Gln	Leu	Glu	Arg	Gly	Gly	Arg	Ala	Val	Val	Lys	Met	340	345	350	
Asp	Trp	Arg	Glu	Asn	Ile	Thr	Asp	Pro	Leu							355	360		

<210> 160

<211> 310

<212> PRT

<213> Homo sapiens



&lt;400&gt; 160

Met	Gly	His	Ala	Leu	Cys	Val	Cys	Ser	Arg	Gly	Thr	Val	Ile	Ile	Asp
1				5					10					15	
Asn	Lys	Arg	Tyr	Leu	Phe	Ile	Gln	Lys	Leu	Gly	Glu	Gly	Gly	Phe	Ser
		20						25					30		
Tyr	Val	Asp	Leu	Val	Glu	Gly	Leu	His	Asp	Gly	His	Phe	Tyr	Ala	Leu
		35					40					45			
Lys	Arg	Ile	Leu	Cys	His	Glu	Gln	Gln	Asp	Arg	Glu	Glu	Ala	Gln	Arg
	50					55					60				
Glu	Ala	Asp	Met	His	Arg	Leu	Phe	Asn	His	Pro	Asn	Ile	Leu	Arg	Leu
65					70					75					80
Val	Ala	Tyr	Cys	Leu	Arg	Glu	Arg	Gly	Ala	Lys	His	Glu	Ala	Trp	Leu
				85					90					95	
Leu	Leu	Pro	Phe	Phe	Lys	Arg	Gly	Thr	Leu	Trp	Asn	Glu	Ile	Glu	Arg
			100					105					110		
Leu	Lys	Asp	Lys	Gly	Asn	Phe	Leu	Thr	Glu	Asp	Gln	Ile	Leu	Trp	Leu
	115						120					125			
Leu	Leu	Gly	Ile	Cys	Arg	Gly	Leu	Glu	Ala	Ile	His	Ala	Lys	Gly	Tyr
	130					135					140				
Ala	His	Arg	Asp	Leu	Lys	Pro	Thr	Asn	Ile	Leu	Leu	Gly	Asp	Glu	Gly
145					150					155					160
Gln	Pro	Val	Leu	Met	Asp	Leu	Gly	Ser	Met	Asn	Gln	Ala	Cys	Ile	His
				165					170					175	
Val	Glu	Gly	Ser	Arg	Gln	Ala	Leu	Thr	Leu	Gln	Asp	Trp	Ala	Ala	Gln
			180					185					190		
Arg	Cys	Thr	Ile	Ser	Tyr	Arg	Ala	Pro	Glu	Leu	Phe	Ser	Val	Gln	Ser
		195					200					205			
His	Cys	Val	Ile	Gly	Glu	Arg	Thr	Asp	Val	Trp	Ser	Leu	Gly	Cys	Val
	210					215					220				
Leu	Tyr	Ala	Met	Met	Phe	Gly	Glu	Gly	Pro	Tyr	Asp	Met	Val	Phe	Gln
225					230					235					240
Lys	Gly	Asp	Ser	Val	Ala	Leu	Ala	Val	Gln	Asn	Gln	Leu	Ser	Ile	Pro
				245					250					255	
Gln	Ser	Pro	Arg	His	Ser	Ser	Ala	Leu	Arg	Gln	Leu	Leu	Asn	Ser	Met
			260					265					270		
Met	Thr	Val	Asp	Pro	His	Gln	Arg	Pro	His	Ile	Pro	Leu	Leu	Leu	Ser
		275					280					285			
Gln	Leu	Glu	Ala	Leu	Gln	Pro	Pro	Ala	Pro	Gly	Gln	His	Thr	Thr	Gln
	290					295					300				

Ile Glu Lys Ala Ala Cys  
305 310

<210> 161  
<211> 365  
<212> PRT  
<213> Homo sapiens

<400> 161  
Met Ser Leu Leu Gln Ser Ala Leu Asp Phe Leu Ala Gly Pro Gly Ser  
1 5 10 15  
Leu Gly Gly Ala Ser Gly Arg Asp Gln Ser Asp Phe Val Gly Gln Thr  
20 25 30  
Val Glu Leu Gly Glu Leu Arg Leu Arg Val Arg Arg Val Leu Ala Glu  
35 40 45  
Gly Gly Phe Ala Phe Val Tyr Glu Ala Gln Asp Val Gly Ser Gly Arg  
50 55 60  
Glu Tyr Ala Leu Lys Arg Leu Leu Ser Asn Glu Glu Glu Lys Asn Arg  
65 70 75 80  
Ala Ile Ile Gln Glu Val Cys Phe Met Lys Lys Leu Ser Gly His Pro  
85 90 95  
Asn Ile Val Gln Phe Cys Ser Ala Ala Ser Ile Gly Lys Glu Glu Ser  
100 105 110  
Asp Thr Gly Gln Ala Glu Phe Leu Leu Leu Thr Glu Leu Cys Lys Gly  
115 120 125  
Gln Leu Val Glu Phe Leu Lys Lys Met Glu Ser Arg Gly Pro Leu Ser  
130 135 140  
Cys Asp Thr Val Leu Lys Ile Phe Tyr Gln Thr Cys Arg Ala Val Gln  
145 150 155 160  
His Met His Arg Gln Lys Pro Pro Ile Ile His Arg Asp Leu Lys Val  
165 170 175  
Glu Asn Leu Leu Leu Ser Asn Gln Gly Thr Ile Lys Leu Cys Asp Phe  
180 185 190  
Gly Ser Ala Thr Thr Ile Ser His Tyr Pro Asp Tyr Ser Trp Ser Ala  
195 200 205  
Gln Arg Arg Ala Leu Val Glu Glu Glu Ile Thr Arg Asn Thr Thr Pro  
210 215 220  
Met Tyr Arg Thr Pro Glu Ile Ile Asp Leu Tyr Ser Asn Phe Pro Ile  
225 230 235 240  
Gly Glu Lys Gln Asp Ile Trp Ala Leu Gly Cys Ile Leu Tyr Leu Leu  
245 250 255

Cys Phe Arg Gln His Pro Phe Glu Asp Gly Ala Lys Leu Arg Ile Val  
                   260                                  265                                  270  
 Asn Gly Lys Tyr Ser Ile Pro Pro His Asp Thr Gln Tyr Thr Val Phe  
                   275                                  280                                  285  
 His Ser Leu Ile Arg Ala Met Leu Gln Val Asn Pro Glu Glu Arg Leu  
                   290                                  295                                  300  
 Ser Ile Ala Glu Val Val His Gln Leu Gln Glu Ile Ala Ala Ala Arg  
   305                                  310                                  315                                  320  
 Asn Val Asn Pro Lys Ser Pro Ile Thr Glu Leu Leu Glu Gln Asn Gly  
                                   325                                  330                                  335  
 Gly Tyr Gly Ser Ala Thr Leu Ser Arg Gly Pro Pro Pro Pro Val Gly  
                                   340                                  345                                  350  
 Pro Ala Gly Ser Gly Tyr Ser Gly Gly Leu Ala Leu Ala  
                   355                                  360                                  365

&lt;210&gt; 162

&lt;211&gt; 355

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 162

Met Lys Lys Phe Ser Arg Met Pro Lys Ser Glu Gly Gly Ser Gly Gly  
   1                                  5                                  10                                  15  
 Gly Ala Ala Gly Gly Gly Ala Gly Gly Ala Gly Ala Gly Ala Gly Cys  
                                   20                                  25                                  30  
 Gly Ser Gly Gly Ser Ser Val Gly Val Arg Val Phe Ala Val Gly Arg  
                                   35                                  40                                  45  
 His Gln Val Thr Leu Glu Glu Ser Leu Ala Glu Gly Gly Phe Ser Thr  
                   50                                  55                                  60  
 Val Phe Leu Val Arg Thr His Gly Gly Ile Arg Cys Ala Leu Lys Arg  
   65                                  70                                  75                                  80  
 Met Tyr Val Asn Asn Met Pro Asp Leu Asn Val Cys Lys Arg Glu Ile  
                                   85                                  90                                  95  
 Thr Ile Met Lys Glu Leu Ser Gly His Lys Asn Ile Val Gly Tyr Leu  
                                   100                                  105                                  110  
 Asp Cys Ala Val Asn Ser Ile Ser Asp Asn Val Trp Glu Val Leu Ile  
                   115                                  120                                  125  
 Leu Met Glu Tyr Cys Arg Ala Gly Gln Val Val Asn Gln Met Asn Lys  
   130                                  135                                  140  
 Lys Leu Gln Thr Gly Phe Thr Glu Pro Glu Val Leu Gln Ile Phe Cys  
   145                                  150                                  155                                  160

Asp Thr Cys Glu Ala Val Ala Arg Leu His Gln Cys Lys Thr Pro Ile  
 165 170 175  
 Ile His Arg Asp Leu Lys Val Glu Asn Ile Leu Leu Asn Asp Gly Gly  
 180 185 190  
 Asn Tyr Val Leu Cys Asp Phe Gly Ser Ala Thr Asn Lys Phe Leu Asn  
 195 200 205  
 Pro Gln Lys Asp Gly Val Asn Val Val Glu Glu Glu Ile Lys Lys Tyr  
 210 215 220  
 Thr Thr Leu Ser Tyr Arg Ala Pro Glu Met Ile Asn Leu Tyr Gly Gly  
 225 230 235 240  
 Lys Pro Ile Thr Thr Lys Ala Asp Ile Trp Ala Leu Gly Cys Leu Leu  
 245 250 255  
 Tyr Lys Leu Cys Phe Phe Thr Leu Pro Phe Gly Glu Ser Gln Val Ala  
 260 265 270  
 Ile Cys Asp Gly Asn Phe Thr Ile Pro Asp Asn Ser Arg Tyr Ser Arg  
 275 280 285  
 Asn Ile His Cys Leu Ile Arg Phe Met Leu Glu Pro Asp Pro Glu His  
 290 295 300  
 Arg Pro Asp Ile Phe Gln Val Ser Tyr Phe Ala Phe Lys Phe Ala Lys  
 305 310 315 320  
 Lys Asp Cys Pro Val Ser Asn Ile Asn Lys Cys Cys Lys Gln Leu Leu  
 325 330 335  
 Arg His Gly Ala Leu Leu Thr Glu Ile Leu Leu Phe Leu Gln Leu Phe  
 340 345 350  
 Leu Asn Arg  
 355

<210> 163  
 <211> 322  
 <212> PRT  
 <213> Homo sapiens

<400> 163  
 Met Glu Gly Ile Ser Asn Phe Lys Thr Pro Ser Lys Leu Ser Glu Lys  
 1 5 10 15  
 Lys Lys Ser Val Leu Cys Ser Thr Pro Thr Ile Asn Ile Pro Ala Ser  
 20 25 30  
 Pro Phe Met Gln Lys Leu Gly Phe Gly Thr Gly Val Asn Val Tyr Leu  
 35 40 45  
 Met Lys Arg Ser Pro Arg Gly Leu Ser His Ser Pro Trp Ala Val Lys  
 50 55 60

205

Lys	Ile	Asn	Pro	Ile	Cys	Asn	Asp	His	Tyr	Arg	Ser	Val	Tyr	Gln	Lys	65	70	75	80
Arg	Leu	Met	Asp	Glu	Ala	Lys	Ile	Leu	Lys	Ser	Leu	His	His	Pro	Asn	85	90	95	
Ile	Val	Gly	Tyr	Arg	Ala	Phe	Thr	Glu	Ala	Asn	Asp	Gly	Ser	Leu	Cys	100	105	110	
Leu	Ala	Met	Glu	Tyr	Gly	Gly	Glu	Lys	Ser	Leu	Asn	Asp	Leu	Ile	Glu	115	120	125	
Glu	Arg	Tyr	Lys	Ala	Ser	Gln	Asp	Pro	Phe	Pro	Ala	Ala	Ile	Ile	Leu	130	135	140	
Lys	Val	Ala	Leu	Asn	Met	Ala	Arg	Gly	Leu	Lys	Tyr	Leu	His	Gln	Glu	145	150	155	160
Lys	Lys	Leu	Leu	His	Gly	Asp	Ile	Lys	Ser	Ser	Asn	Val	Val	Ile	Lys	165	170	175	
Gly	Asp	Phe	Glu	Thr	Ile	Lys	Ile	Cys	Asp	Val	Gly	Val	Ser	Leu	Pro	180	185	190	
Leu	Asp	Glu	Asn	Met	Thr	Val	Thr	Asp	Pro	Glu	Ala	Cys	Tyr	Ile	Gly	195	200	205	
Thr	Glu	Pro	Trp	Lys	Pro	Lys	Glu	Ala	Val	Glu	Glu	Asn	Gly	Val	Ile	210	215	220	
Thr	Asp	Lys	Ala	Asp	Ile	Phe	Ala	Phe	Gly	Leu	Thr	Leu	Trp	Glu	Met	225	230	235	240
Met	Thr	Leu	Ser	Ile	Pro	His	Ile	Asn	Leu	Ser	Asn	Asp	Asp	Asp	Asp	245	250	255	
Glu	Asp	Lys	Thr	Phe	Asp	Glu	Ser	Asp	Phe	Asp	Asp	Glu	Ala	Tyr	Tyr	260	265	270	
Ala	Ala	Leu	Gly	Thr	Arg	Pro	Pro	Ile	Asn	Met	Glu	Glu	Leu	Asp	Glu	275	280	285	
Ser	Tyr	Gln	Lys	Val	Ile	Glu	Leu	Phe	Ser	Val	Cys	Thr	Asn	Glu	Asp	290	295	300	
Pro	Lys	Asp	Arg	Pro	Ser	Ala	Ala	His	Ile	Val	Glu	Ala	Leu	Glu	Thr	305	310	315	320

Asp Val

<210> 164  
 <211> 310  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 164

Pro Leu Arg Glu Leu Leu Arg Glu Arg Ala Glu Lys Met Gly Gln Asn  
 1 5 10 15  
 Leu Asn Arg Ile Pro Tyr Lys Asp Thr Phe Trp Lys Gly Thr Thr Arg  
 20 25 30  
 Thr Arg Pro Arg Asn Gly Thr Leu Asn Lys His Ser Gly Ile Asp Phe  
 35 40 45  
 Lys Gln Leu Asn Phe Leu Thr Lys Leu Asn Glu Asn His Ser Gly Glu  
 50 55 60  
 Leu Trp Lys Gly Arg Trp Gln Gly Asn Asp Ile Val Val Lys Val Leu  
 65 70 75 80  
 Lys Val Arg Asp Trp Ser Thr Arg Lys Ser Arg Asp Phe Asn Glu Glu  
 85 90 95  
 Cys Pro Arg Leu Arg Ile Phe Ser His Pro Asn Val Leu Pro Val Leu  
 100 105 110  
 Gly Ala Cys Gln Ser Pro Pro Ala Pro His Pro Thr Leu Ile Thr His  
 115 120 125  
 Trp Met Pro Tyr Gly Ser Leu Tyr Asn Val Leu His Glu Gly Thr Asn  
 130 135 140  
 Phe Val Val Asp Gln Ser Gln Ala Val Lys Phe Ala Leu Asp Met Ala  
 145 150 155 160  
 Arg Gly Met Ala Phe Leu His Thr Leu Glu Pro Leu Ile Pro Arg His  
 165 170 175  
 Ala Leu Asn Ser Arg Ser Val Met Ile Asp Glu Asp Met Thr Ala Arg  
 180 185 190  
 Ile Ser Met Ala Asp Val Lys Phe Ser Phe Gln Cys Pro Gly Arg Met  
 195 200 205  
 Tyr Ala Pro Ala Trp Val Ala Pro Glu Ala Leu Gln Lys Lys Pro Glu  
 210 215 220  
 Asp Thr Asn Arg Arg Ser Ala Asp Met Trp Ser Phe Ala Val Leu Leu  
 225 230 235 240  
 Trp Glu Leu Val Thr Arg Glu Val Pro Phe Ala Asp Leu Ser Asn Met  
 245 250 255  
 Glu Ile Gly Met Lys Val Ala Leu Glu Gly Leu Arg Pro Thr Ile Pro  
 260 265 270  
 Pro Gly Ile Ser Pro His Val Cys Lys Leu Met Lys Ile Cys Met Asn  
 275 280 285  
 Glu Asp Pro Ala Lys Arg Pro Lys Phe Asp Met Ile Val Pro Ile Leu  
 290 295 300

Glu Lys Met Gln Asp Lys  
305 310

<210> 165  
<211> 981  
<212> DNA  
<213> Homo sapiens

<400> 165  
atgctgctct ccaagttcgg ctccctggcg cacctctgcg ggcccggcgg cgtggaccac 60  
ctcccgggtga agatcctgca gccagccaag gcggacaagg agagcttcga gaaggcgtac 120  
caggtgggcg ccgtgctggg tagcggcggc ttcggcacgg tctacgcggg tagccgcatc 180  
gccgacgggc tcccgggtggc tgtgaagcac gtggtgaagg agcgggtgac cgagtggggc 240  
agcctgggcg gcgcgaccgt gccctggag gtggtgctgc tgcgcaagg gggcgcggcg 300  
ggcggcgcgc gcggcgatcat ccgcctgctg gactgggtcg agcggcccga cggcttcctg 360  
ctggtgctgg agcggcccga gccggcgag gacctcttcg actttatcac ggagcgcggc 420  
gccctggagc agccgctggc gcgcgccttc ttcgcgcagg tgctggccgc cgtgcgccac 480  
tgccacagct gcggggctcgt gcaccgcgac attaaggacg aaaatctgct tgtggacctg 540  
cgctccggag agctcaagct catcgacttc gggtcgggtg cgctgctcaa ggacacgggtc 600  
tacaccgact tcgacggcac ccgagtgtac agcccccccg agtggatccg ctaccaccgc 660  
taccacgggc gctcggccac cgtgtggtcg ctgggcgtgc ttctctacga tatggtgtgt 720  
ggggacatcc ctttcgagca ggacgaggag atcctccgag gccgcctgct cttccggagg 780  
agggctcttc cagagtgccg gcagctgac cggtgggtgcc tgtccctgcg gccctcagag 840  
cggccgctgc tggatcagat tgcggcccat ccttgatgc tgggggctga cgggggcgcc 900  
ccggagagct gtgacctgcg gctgtgcacc ctgcaccctg atgacgtggc cagcaccacg 960  
tccagcagcg agagcttgtg a 981

<210> 166  
<211> 326  
<212> PRT  
<213> Homo sapiens

<400> 166  
Met Leu Leu Ser Lys Phe Gly Ser Leu Ala His Leu Cys Gly Pro Gly  
1 5 10 15  
Gly Val Asp His Leu Pro Val Lys Ile Leu Gln Pro Ala Lys Ala Asp  
20 25 30  
Lys Glu Ser Phe Glu Lys Ala Tyr Gln Val Gly Ala Val Leu Gly Ser  
35 40 45  
Gly Gly Phe Gly Thr Val Tyr Ala Gly Ser Arg Ile Ala Asp Gly Leu  
50 55 60  
Pro Val Ala Val Lys His Val Val Lys Glu Arg Val Thr Glu Trp Gly  
65 70 75 80  
Ser Leu Gly Gly Ala Thr Val Pro Leu Glu Val Val Leu Leu Arg Lys  
85 90 95  
Val Gly Ala Ala Gly Gly Ala Arg Gly Val Ile Arg Leu Leu Asp Trp  
100 105 110  
Phe Glu Arg Pro Asp Gly Phe Leu Leu Val Leu Glu Arg Pro Glu Pro  
115 120 125

Ala Gln Asp Leu Phe Asp Phe Ile Thr Glu Arg Gly Ala Leu Asp Glu  
 130 135 140  
 Pro Leu Ala Arg Arg Phe Phe Ala Gln Val Leu Ala Ala Val Arg His  
 145 150 155 160  
 Cys His Ser Cys Gly Val Val His Arg Asp Ile Lys Asp Glu Asn Leu  
 165 170 175  
 Leu Val Asp Leu Arg Ser Gly Glu Leu Lys Leu Ile Asp Phe Gly Ser  
 180 185 190  
 Gly Ala Leu Leu Lys Asp Thr Val Tyr Thr Asp Phe Asp Gly Thr Arg  
 195 200 205  
 Val Tyr Ser Pro Pro Glu Trp Ile Arg Tyr His Arg Tyr His Gly Arg  
 210 215 220  
 Ser Ala Thr Val Trp Ser Leu Gly Val Leu Leu Tyr Asp Met Val Cys  
 225 230 235 240  
 Gly Asp Ile Pro Phe Glu Gln Asp Glu Glu Ile Leu Arg Gly Arg Leu  
 245 250 255  
 Leu Phe Arg Arg Arg Val Ser Pro Glu Cys Gln Gln Leu Ile Arg Trp  
 260 265 270  
 Cys Leu Ser Leu Arg Pro Ser Glu Arg Pro Ser Leu Asp Gln Ile Ala  
 275 280 285  
 Ala His Pro Trp Met Leu Gly Ala Asp Gly Gly Ala Pro Glu Ser Cys  
 290 295 300  
 Asp Leu Arg Leu Cys Thr Leu Glu Pro Asp Asp Val Ala Ser Thr Thr  
 305 310 315 320  
 Ser Ser Ser Glu Ser Leu  
 325

<210> 167

<211> 6

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic  
6-His tag

<400> 167

His His His His His His  
1 5



<210> 168  
 <211> 34  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 168  
 gcagccacat atggcggaca aggagagctt cgag 34

<210> 169  
 <211> 34  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence: Synthetic  
 oligonucleotide

<400> 169  
 tgcagcgtcg accaagctct cgctgctgga cgtg 34

<210> 170  
 <211> 374  
 <212> PRT  
 <213> Homo sapiens

<400> 170  
 Gln Gln Lys Leu Ser Ser Thr Trp Glu Thr Gly Lys Thr Arg Lys Leu  
 1 5 10 15  
 Met Glu Phe Ser Glu His Cys Ala Ile Ile Leu Glu Asp Asp Arg Ser  
 20 25 30  
 Asp Ile Ser Ser Thr Cys Ala Asn Asn Ile Asn His Asn Thr Glu Leu  
 35 40 45  
 Leu Pro Ile Glu Leu Asp Thr Leu Val Gly Lys Gly Arg Phe Ala Glu  
 50 55 60  
 Val Tyr Lys Ala Lys Leu Lys Gln Asn Thr Ser Glu Gln Phe Glu Thr  
 65 70 75 80  
 Val Ala Val Lys Ile Phe Pro Tyr Glu Glu Tyr Ala Ser Trp Lys Thr  
 85 90 95  
 Glu Lys Asp Ile Phe Ser Asp Ile Asn Leu Lys His Glu Asn Ile Leu  
 100 105 110  
 Gln Phe Leu Thr Ala Glu Glu Arg Lys Thr Glu Leu Gly Lys Gln Tyr  
 115 120 125  
 Trp Leu Ile Thr Ala Phe His Ala Lys Gly Asn Leu Gln Glu Tyr Leu  
 130 135 140

Thr Arg His Val Ile Ser Trp Glu Asp Leu Arg Lys Leu Gly Ser Ser  
 145 150 155 160  
 Leu Ala Arg Gly Ile Ala His Leu His Ser Asp His Thr Pro Cys Gly  
 165 170 175  
 Arg Pro Lys Met Pro Ile Val His Arg Asp Leu Lys Ser Ser Asn Ile  
 180 185 190  
 Leu Val Lys Asn Asp Leu Thr Cys Cys Leu Cys Asp Phe Gly Leu Ser  
 195 200 205  
 Leu Arg Leu Asp Pro Thr Leu Ser Val Asp Asp Leu Ala Asn Ser Gly  
 210 215 220  
 Gln Val Gly Thr Ala Arg Tyr Met Ala Pro Glu Val Leu Glu Ser Arg  
 225 230 235 240  
 Met Asn Leu Glu Asn Ala Glu Ser Phe Lys Gln Thr Asp Val Tyr Ser  
 245 250 255  
 Met Ala Leu Val Leu Trp Glu Met Thr Ser Arg Cys Asn Ala Val Gly  
 260 265 270  
 Glu Val Lys Asp Tyr Glu Pro Pro Phe Gly Ser Lys Val Arg Glu His  
 275 280 285  
 Pro Cys Val Glu Ser Met Lys Asp Asn Val Leu Arg Asp Arg Gly Arg  
 290 295 300  
 Pro Glu Ile Pro Ser Phe Trp Leu Asn His Gln Gly Ile Gln Met Val  
 305 310 315 320  
 Cys Glu Thr Leu Thr Glu Cys Trp Asp His Asp Pro Glu Ala Arg Leu  
 325 330 335  
 Thr Ala Gln Cys Val Ala Glu Arg Phe Ser Glu Leu Glu His Leu Asp  
 340 345 350  
 Arg Leu Ser Gly Arg Ser Cys Ser Glu Glu Lys Ile Pro Glu Asp Gly  
 355 360 365  
 Ser Leu Asn Thr Thr Lys  
 370

&lt;210&gt; 171

&lt;211&gt; 325

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 171

Met Thr Val Phe Arg Gln Glu Asn Val Asp Asp Tyr Tyr Asp Thr Gly  
 1 5 10 15

Glu Glu Leu Gly Ser Gly Gln Phe Ala Val Val Lys Lys Cys Arg Glu  
 20 25 30

Lys Ser Thr Gly Leu Gln Tyr Ala Ala Lys Phe Ile Lys Lys Arg Arg  
                   35                                  40                                  45  
 Thr Lys Ser Ser Arg Arg Gly Val Ser Arg Glu Asp Ile Glu Arg Glu  
           50                                  55                                  60  
 Val Ser Ile Leu Lys Glu Ile Gln His Pro Asn Val Ile Thr Leu His  
   65                                  70                                  75                                  80  
 Glu Val Tyr Glu Asn Lys Thr Asp Val Ile Leu Ile Leu Glu Leu Val  
                                   85                                  90                                  95  
 Ala Gly Gly Glu Leu Phe Asp Phe Leu Ala Glu Lys Glu Ser Leu Thr  
                   100                                  105                                  110  
 Glu Glu Glu Ala Thr Glu Phe Leu Lys Gln Ile Leu Asn Gly Val Tyr  
           115                                  120                                  125  
 Tyr Leu His Ser Leu Gln Ile Ala His Phe Asp Leu Lys Pro Glu Asn  
   130                                  135                                  140  
 Ile Met Leu Leu Asp Arg Asn Val Pro Lys Pro Arg Ile Lys Ile Ile  
  145                                  150                                  155                                  160  
 Asp Phe Gly Leu Ala His Lys Ile Asp Phe Gly Asn Glu Phe Lys Asn  
                                   165                                  170                                  175  
 Ile Phe Gly Thr Pro Glu Phe Val Ala Pro Glu Ile Val Asn Tyr Glu  
                   180                                  185                                  190  
 Pro Leu Gly Leu Glu Ala Asp Met Trp Ser Ile Gly Val Ile Thr Tyr  
           195                                  200                                  205  
 Ile Leu Leu Ser Gly Ala Ser Pro Phe Leu Gly Asp Thr Lys Gln Glu  
   210                                  215                                  220  
 Thr Leu Ala Asn Val Ser Ala Val Asn Tyr Glu Phe Glu Asp Glu Tyr  
  225                                  230                                  235                                  240  
 Phe Ser Asn Thr Ser Ala Leu Ala Lys Asp Phe Ile Arg Arg Leu Leu  
                                   245                                  250                                  255  
 Val Lys Asp Pro Lys Lys Arg Met Thr Ile Gln Asp Ser Leu Gln His  
                                   260                                  265                                  270  
 Pro Trp Ile Lys Pro Lys Asp Thr Gln Gln Ala Leu Ser Arg Lys Ala  
           275                                  280                                  285  
 Ser Ala Val Asn Met Glu Lys Phe Lys Lys Phe Ala Ala Arg Lys Lys  
   290                                  295                                  300  
 Trp Lys Gln Ser Val Arg Leu Ile Ser Leu Cys Gln Arg Leu Ser Arg  
  305                                  310                                  315                                  320  
 Ser Phe Leu Ser Arg  
                                   325

<210> 172  
 <211> 274  
 <212> PRT  
 <213> Homo sapiens

<400> 172

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Pro Leu Glu Ser Gln Tyr Gln Val Gly Pro Leu Leu Gly Ser Gly Gly
 1              5              10              15

Phe Gly Ser Val Tyr Ser Gly Ile Arg Val Ser Asp Asn Leu Pro Val
      20              25              30

Ala Ile Lys His Val Glu Lys Asp Arg Ile Ser Asp Trp Gly Glu Leu
      35              40              45

Pro Asn Gly Thr Arg Val Pro Met Glu Val Val Leu Leu Lys Lys Val
      50              55              60

Ser Ser Gly Phe Ser Gly Val Ile Arg Leu Leu Asp Trp Phe Glu Arg
      65              70              75              80

Pro Asp Ser Phe Val Leu Ile Leu Glu Arg Pro Glu Pro Val Gln Asp
      85              90              95

Leu Phe Asp Phe Ile Thr Glu Arg Gly Ala Leu Gln Glu Glu Leu Ala
      100             105             110

Arg Ser Phe Phe Trp Gln Val Leu Glu Ala Val Arg His Cys His Asn
      115             120             125

Cys Gly Val Leu His Arg Asp Ile Lys Asp Glu Asn Ile Leu Ile Asp
      130             135             140

Leu Asn Arg Gly Glu Leu Lys Leu Ile Asp Phe Gly Ser Gly Ala Leu
      145             150             155             160

Leu Lys Asp Thr Val Tyr Thr Asp Phe Asp Gly Thr Arg Val Tyr Ser
      165             170             175

Pro Pro Glu Trp Ile Arg Tyr His Arg Tyr His Gly Arg Ser Ala Ala
      180             185             190

Val Trp Ser Leu Gly Ile Leu Leu Tyr Asp Met Val Cys Gly Asp Ile
      195             200             205

Pro Phe Glu His Asp Glu Glu Ile Ile Arg Gly Gln Val Phe Phe Arg
      210             215             220

Gln Arg Val Ser Ser Glu Cys Gln His Leu Ile Arg Trp Cys Leu Ala
      225             230             235             240

Leu Arg Pro Ser Asp Arg Pro Thr Phe Glu Glu Ile Gln Asn His Pro
      245             250             255

Trp Met Gln Asp Val Leu Leu Pro Gln Glu Thr Ala Glu Ile His Leu
      260             265             270

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His Ser

&lt;210&gt; 173

&lt;211&gt; 285

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 173

Lys Glu Lys Glu Pro Leu Glu Ser Gln Tyr Gln Val Gly Pro Leu Leu  
 1 5 10 15  
 Gly Ser Gly Gly Phe Gly Ser Val Tyr Ser Gly Ile Arg Val Ser Asp  
 20 25 30  
 Asn Leu Pro Val Ala Ile Lys His Val Glu Lys Asp Arg Ile Ser Asp  
 35 40 45  
 Trp Gly Glu Leu Pro Asn Gly Thr Arg Val Pro Met Glu Val Val Leu  
 50 55 60  
 Leu Lys Lys Val Ser Ser Gly Phe Ser Gly Val Ile Arg Leu Leu Asp  
 65 70 75 80  
 Trp Phe Glu Arg Pro Asp Ser Phe Val Leu Ile Leu Glu Arg Pro Glu  
 85 90 95  
 Pro Val Gln Asp Leu Phe Asp Phe Ile Thr Glu Arg Gly Ala Leu Gln  
 100 105 110  
 Glu Glu Leu Ala Arg Ser Phe Phe Trp Gln Val Leu Glu Ala Val Arg  
 115 120 125  
 His Cys His Asn Cys Gly Val Leu His Arg Asp Ile Lys Asp Glu Asn  
 130 135 140  
 Ile Leu Ile Asp Leu Asn Arg Gly Glu Leu Lys Leu Ile Asp Phe Gly  
 145 150 155 160  
 Ser Gly Ala Leu Leu Lys Asp Thr Val Tyr Thr Asp Phe Asp Gly Thr  
 165 170 175  
 Arg Val Tyr Ser Pro Pro Glu Trp Ile Arg Tyr His Arg Tyr His Gly  
 180 185 190  
 Arg Ser Ala Ala Val Trp Ser Leu Gly Ile Leu Leu Tyr Asp Met Val  
 195 200 205  
 Cys Gly Asp Ile Pro Phe Glu His Asp Glu Glu Ile Ile Arg Gly Gln  
 210 215 220  
 Val Phe Phe Arg Gln Arg Val Ser Ser Glu Cys Gln His Leu Ile Arg  
 225 230 235 240  
 Trp Cys Leu Ala Leu Arg Pro Ser Asp Arg Pro Thr Phe Glu Glu Ile  
 245 250 255

214

Gln Asn His Pro Trp Met Gln Asp Val Leu Leu Pro Gln Glu Thr Ala  
260 265 270

Glu Ile His Leu His Ser Leu Ser Pro Gly Pro Ser Lys  
275 280 285